



## **Growing the desert:**

Regional and educational profiles of the Australian desert and its Indigenous peoples

### Stage 1 Report

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The views and opinions expressed in this document are those of the author/project team and do not necessarily reflect the views of ANTA or NCVER

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# Key messages

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- ✧ The desert context provides unique challenges for the delivery of vocational training and adult and community education programs for Indigenous peoples. Apart from being isolated and remote, Indigenous communities are mostly small and do not have infrastructure capacity that might be expected in other rural communities around Australia. In addition, regional mobility, an industry mix that depends on high skill levels, language and cultural diversity and high population growth rates create challenges for the provision of services generally and post-compulsory education, more specifically.
- ✧ The main employment opportunity for desert Indigenous peoples is the Community Development Employment Program (CDEP). Only one in six working aged desert Indigenous people are in non-CDEP employment. CDEP forms the backbone of essential public and community services on desert communities.
- ✧ Participation rates in VET are high but cluster around Certificate I & II qualifications or in mixed field subject only enrolments. The two main employment areas of desert: mining and retail are noticeably under-represented by Indigenous people.
- ✧ The nature of the engagement of desert Indigenous peoples in VET reflects ACE type courses and learning programs more than vocationally oriented courses. There is a plethora of other educational activity occurring across the desert that are being driven and enacted outside of the formal educational sector. ACE does not exist as a formal sector across most of the desert.
- ✧ The extent of Indigenous engagement with other learning activities facilitated by the vast landscape of programs funded under the umbrella of capacity building or community development alludes to a suite of learning opportunities arguably more situated in and responsive to desert contexts. This suggests, particularly given the absence of a formal ACE sector across the desert, the need for some collaborative agency in shaping an array of learning opportunities more attuned to local aspirations and skill sets and perhaps less aligned to mainstream industry or occupations.
- ✧ The uptake of VET courses across desert Australia is limited to those Indigenous peoples prepared to journey to mine sites or major service centres where most employment opportunities exist and who are less likely to speak an Indigenous language, be employed in CDEP or rely on accessing compulsory education on their communities or homelands. In many ways the bulk of VET offerings across the desert sit uneasily within the reality that the training is aligned with jobs and opportunities available elsewhere and not in the places where Indigenous people live and in all likelihood will continue to choose to live.
- ✧ The available data neither counts nor reflects many of the activities occurring on the ground as desert Indigenous people innovate their own place based forms of engagement across the customary and modern economies as learners and as workers.

# Executive summary

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This report examines data and issues related to Vocational Education and Training (VET) and Adult and Community Education (ACE) in the desert region of Australia, with a particular focus on Indigenous peoples. It firstly examines the context of training delivery in terms of demography, infrastructure and access to services. Secondly, a summary of VET and ACE data is drawn together from a variety of sources. Finally, some preliminary conclusions are drawn about participation and application of training in the desert, based to a large part on the analysis of the contextual data.

Indigenous peoples of Australia, compared to non-Indigenous peoples, experience ‘overwhelming’ disadvantage across every indicator of social and economic well being. In education this disadvantage is experienced across sectors. Indigenous primary school students are less likely to achieve year three and five literacy bench marks; Indigenous students of secondary age are half as less likely to achieve year 12; and while Indigenous students are participating at increasingly higher rates in VET their pass rates and qualification outcomes remain well below that of non Indigenous Australians.

While disadvantage in both absolute and relative terms undoubtedly exists, equity based responses continue to position Indigenous peoples as beneficiaries of services rather than consumers. Such approaches constitute a tinkering at the edges while mainstream modes and outcomes remain core. Applied to desert contexts, it could be argued that many VET offerings are tailored towards types of work and achievement inimical to small traditionally oriented communities. Semi arid and arid lands (deserts) cover over two thirds of the Australian continent. This is an area of unique geography, demography, settlement patterns and cultural diversity that present unique challenges for the delivery of services, including education.

Analysis of a range of data across socio economic indicators usually takes place at the State, Territory or national levels. A more recent trend has been to analyse data, including education and training data, according to location as classified by the Accessibility/Remoteness Index of Australia. This project focuses on the desert or arid areas of Australia and presents a statistical and descriptive analysis utilising a range of data including the 2001 Population and Housing Census, the 2002 National Aboriginal and Torres Strait Islander Social Survey, the 2001 Community Housing and Infrastructure Needs Survey (CHINS) and 2003/2004 NCVET data as well as relevant literature.

This report constitutes Stage one of a three stage project. It aims to: a) build a picture of the desert region that can inform what counts as effective education and training pathways for Indigenous peoples residing therein, often on their traditional lands; b) develop an understanding of five separate jurisdictional approaches to Indigenous education; and c) identify the unique issues, barriers and opportunities in relation to educational engagement, outcomes and livelihoods activities.

The report reviews relevant data applicable to the desert region, providing important regional contextual information for the provision and access to education and training services across the region. It compares the desert region with Australia as a whole and considers jurisdictional differences for variables relating to:

- ✧ Settlement patterns and mobility;
- ✧ Housing and infrastructure;
- ✧ Access to compulsory and post-compulsory education services;
- ✧ Community Development and Employment Programs (CDEP);

- ✧ Community facilities and communication networks; and
- ✧ Socio-economic status.

More specifically, the report considers aspects of VET and ACE delivery across the desert in terms of participation, qualifications, and the match of skills to desert industry. A particular focus of the report relates to the use and provision of educational services for Indigenous peoples of the desert.

The analysis of data and literature undertaken for Stage one of the *Growing the desert* project highlights some of the realities impacting on educational pathways for Indigenous peoples across the desert. These can be summarised as follows:

- ✧ The settlement patterns of Indigenous peoples across desert Australia are unique. They have been and are being shaped by policies and practices of successive governments and service delivery regimes as well as ongoing expressions of connections to kin and country. The ongoing viability of these settlements, economically, socially and culturally is still emerging.
- ✧ Of the 33,186 Indigenous people in the desert, more than 4,000 live on communities of less than 50 people and they are highly mobile across the region. The largest desert communities have populations of no more than 1000.
- ✧ Population growth estimates for Indigenous desert people are positive particularly in the prime working age group of 25 to 64.
- ✧ There are significant pressures on housing and infrastructure in discrete desert communities and overcrowding is endemic.
- ✧ Discrete desert communities, particularly in terms of education and employment opportunities, fare worse than discrete desert communities in other remote and very remote localities in Australia.
- ✧ A significant proportion of land across desert Australia is held under various types of land tenure, by Indigenous peoples.
- ✧ Access to education services across the desert is relatively poor, especially at secondary and senior secondary levels.
- ✧ Access to payphones, private phones and the internet is significantly constrained across the desert, but especially in Northern Territory desert areas.
- ✧ Facilities that might support on site education programs are very limited. One in seven communities with more than 50 people have no facilities.
- ✧ The main employment opportunity for desert Indigenous peoples is the CDEP. Only one in six working aged desert Indigenous people are in non-CDEP employment.
- ✧ CDEP forms the backbone of essential public and community services on desert communities. In some cases it is an incubator for enterprise activities.
- ✧ Participation rates in VET are high but cluster around Certificate I & II qualifications or in mixed field subject only enrolments. The two main employment areas in the desert - mining and retail - are noticeably under-represented by Indigenous people.
- ✧ Only four per cent of desert Indigenous peoples hold a Certificate qualification. High participation rates do not equate with Certificate completions.
- ✧ Desert Indigenous people are not participating to any great extent in the fields of education where most jobs in the desert currently exist.
- ✧ While more than half of desert Indigenous people speak an Indigenous language as their first language, they comprise less than one third of the cohort participating in VET.



- ✧ The nature of the engagement of desert Indigenous peoples in VET reflects ACE type courses and learning programs more than vocationally oriented courses.
- ✧ There is a plethora of other educational activity occurring across the desert that are being driven and enacted outside of the formal educational sector. ACE does not exist as a formal sector across most of the desert.

Current educational pathways for Indigenous peoples across the desert can perhaps be described as a continuously revolving door able to be entered and exited many times but rarely leading to anywhere different. Most Indigenous people are engaging at lower Australian Qualification Framework (AQF) levels and in subject only programs and high participation rates may well be the result of the same learners entering and exiting different programs with different training providers fairly continuously. While there are undoubtedly some exceptions to this picture they are perhaps indeed the exception rather than the rule for Indigenous desert people. However, this is not to say that there do not exist in some places and some fields strong links between VET and Indigenous communities. Indeed, there are some Indigenous specific courses and programs designed to assist people to work in the Indigenous sector. Across the desert this link is perhaps most evident in the creative arts areas with developing opportunities in natural resource management.

The extent of Indigenous engagement with other learning activities facilitated by the vast landscape of programs funded under the umbrella of capacity building or community development, while difficult to quantify, alludes to a suite of learning opportunities arguably more situated in and responsive to desert contexts. This suggests, particularly given the absence of a formal ACE sector across the desert, the need for some collaborative agency in shaping an array of learning opportunities more attuned to local aspirations and skill sets and perhaps less aligned to mainstream industry or occupations. It is arguable that the take up of VET courses across desert Australia is limited to those Indigenous peoples prepared to journey to mine sites or major service centres where most employment opportunities exist and who are less likely to speak an Indigenous language, be employed in CDEP or indeed rely on accessing compulsory education on their communities or homelands. In many ways the bulk of VET offerings across the desert sit uneasily within the reality that the training is aligned with jobs and opportunities available elsewhere and not in the places where Indigenous people live and in all likelihood will continue to choose to live.

# Introduction

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It is a well known fact that the Indigenous peoples of Australia, compared to non-Indigenous peoples experience ‘overwhelming’ disadvantage across every indicator of social and economic well being (SCRGSP 2003). In education this disadvantage is experienced across sectors. Indigenous primary school students are less likely to achieve year three and five literacy benchmarks (MCEETYA 2003); Indigenous students of secondary age are half as less likely to achieve year 12 (ABS 2003a); and while Indigenous students are participating at increasingly higher rates in Vocational Education and Training (VET) their pass rates and qualification outcomes remain well below that of non Indigenous Australians (NCVER 2003).

It is also a well known fact that Indigenous peoples and cultures are diverse and that locality plays a role in both articulating such differences and in influencing the nature of access and outcomes achieved from education and other services (ANTA 2000; Golding & Pattison 2004). Analysis of data from the ABS 2001 Population and Housing Census (ABS 2002d) identifies that residents of regional and remote Australia have consistently lower rates of attendance in the non compulsory years 11 and 12 and the proportion of people with non school qualifications declined with increasing remoteness. The association between lower educational attainment and remoteness is often attributed to the higher numbers of Indigenous people residing in remote and very remote Australia (e.g. Guenther & Falk 2003; Guenther 2004).

As noted by Boughton and Durnan (2004) the flavour of the discourse about Indigenous peoples and education in Australia is infused with notions of disadvantage that resonate as deficit analyses, locating the heart of the problem as residual with the individual or group rather than systemic. Such deficit analyses are also co-located within notions of the ‘outback’—the harsh and under-serviced frontier. While disadvantage in both absolute and relative terms undoubtedly exists, equity based responses continue to position Indigenous peoples as beneficiaries of services rather than consumers. Such approaches constitute a tinkering at the edges while mainstream modes and outcomes remain core. Applied to desert contexts, it could be argued that many VET offerings are tailored towards types of work and achievement inimical to small traditionally oriented communities. Work and evolving hybrid economics and activities do exist (e.g. Altman 2003a) but they do not ‘fit’ easily into the mainstream paradigms of work and economic development intrinsic to training products and policies. As long as Indigenous peoples are positioned as ‘needing to benefit’ from the supply of education services rather than being able to negotiate the type and nature of services to align with local aspirations, it is arguable that pathways to meaningful and sustainable economic and social activities will remain fraught.

## Scoping the desert

Semi arid and arid lands (deserts) cover over two thirds of the Australian continent. This is an area of unique geography, demography, settlement patterns and cultural diversity that present unique challenges for the delivery of services, including education. The desert region corresponds with remote and very remote categories of the Remoteness structure within the Australian Standard Geographic Classification (ASGC) (ABS 2000; BRS 1999:113; Taylor 2002a) and includes large parts of the Northern Territory, Western Australia and South Australia and smaller parts of Queensland and New South Wales.

Analysis of a range of data across socio economic indicators usually takes place at the State, Territory or national levels. A more recent trend has been to analyse data, including education and training data, according to location as classified by the Accessibility/Remoteness Index of Australia (DHAC 2001). This has enabled identification of ‘disadvantaged’ people by location.

According to Golding and Pattison (2004:114) “80% of all Indigenous people in the ‘most disadvantaged’ category live in ‘very remote’ areas.”

The spatial characteristics of remote and very remote areas of Australia are diverse and include coastal and savanna areas in the far north as well as large areas of the inland. While there are undoubtedly similarities between these geographically distinct remote areas there are also some differences in the economies and opportunities of these regions in terms of work and educational opportunities. This project focuses on the desert or arid areas of Australia and presents a statistical and descriptive analysis utilising a range of data. This analysis seeks to paint the picture of educational services for Indigenous desert dwellers and examines the contexts and issues that support or constrain effective educational pathways and outcomes.

This report constitutes Stage one of a three stage project. It aims to:

- a) build a picture of the desert region that can inform what counts as effective education and training pathways for Indigenous peoples residing therein, often on their traditional lands;
- b) develop an understanding of five separate jurisdictional approaches to Indigenous education; and
- c) identify the unique issues, barriers and opportunities in relation to educational engagement, outcomes and livelihoods activities.

The key research questions addressed in this stage of the project are:

- ✧ How effectively does VET supply meet demand across the desert and respond to new livelihood opportunities?
- ✧ To what extent are Indigenous VET students in the desert moving through to work and/or livelihood activities, both CDEP and others?
- ✧ What myriad of experiences and realities impact on effective provision and improved Indigenous learner outcomes in post compulsory education including VET and Adult and Community Education (ACE)?
- ✧ How do different jurisdictions and differences between jurisdictions (and desert factors such as mobility and small highly dispersed communities) enable or constrain educational approaches to supply and demand and new livelihoods opportunities?

## Methodology

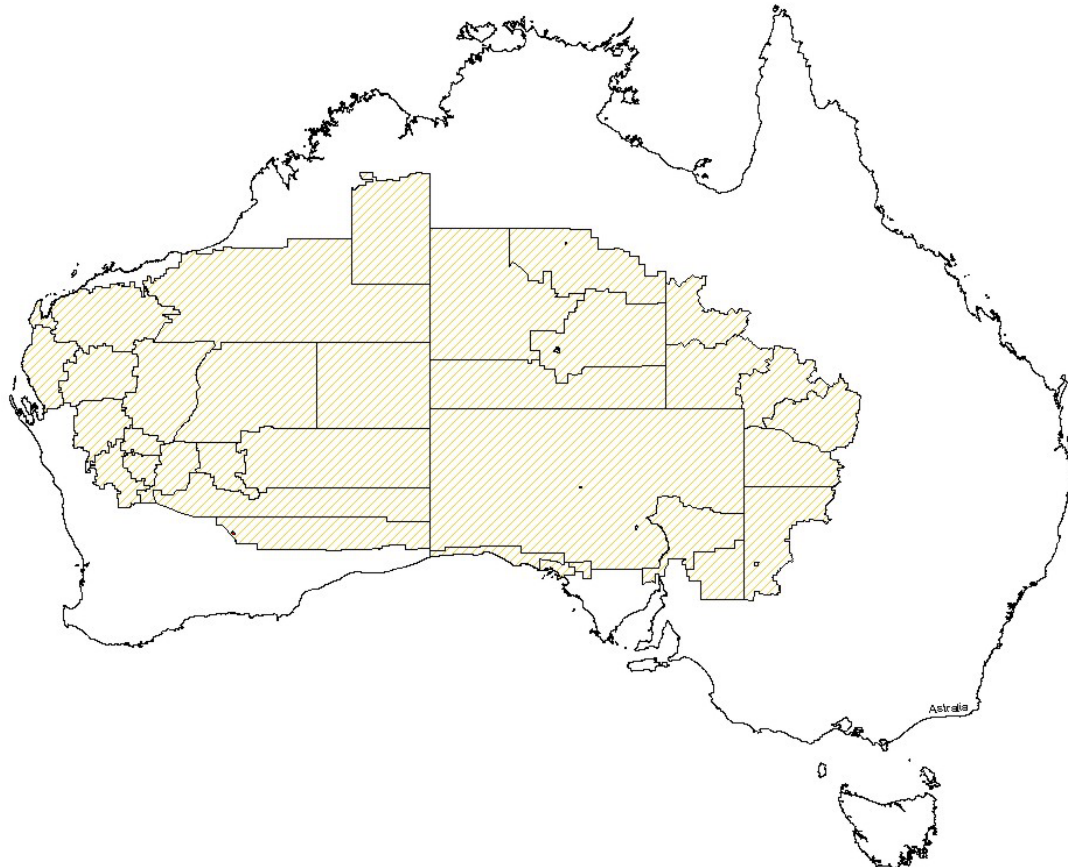
Much of the data and discussion presented here is based on an analysis of several sources of data that relate to a range of indicators of well-being for the desert region. The data sources include:

- ✧ Australian Bureau of Statistics 2001 Census Data (drawn from ABS 2002a, 2002b, 2003b & ABS 2003e);
- ✧ 2002 National Aboriginal and Torres Strait Islander Social Survey (ABS 2004a), also known as the Indigenous Social Survey (ISS);
- ✧ National VET statistics compiled by the National Centre for Vocational Education Research (drawn from datasets within NCVET 2003, 2004a, 2004b); and
- ✧ The Community Housing and Infrastructure Needs Survey (ABS 2002c).

Where possible, datasets were queried based on geographical areas to produce a consistently comparable set of regionally based statistics. In the case of Census data, the areas are the Statistical Local Areas (SLAs) shown in Figure 1. Where references to ABS data are made in this report, these are often derived from the source data contained within a publicly available data

source. For the ISS, for which data is provided for remoteness levels by jurisdictions, estimations for variables were made on the basis of the desert region being a subset of remote Australia. For VET statistics supplied by NCVER, a concordance of postcodes and Statistical Local Areas was used to approximate the desert region within each jurisdiction. The desert subset of the CHINS data was created using discrete communities identified within the desert region shown in Figure 1.

**Figure 1. Extent of arid zone (desert region) used in analysis by 2001 ASGC SLAs**



Source: ABS 2003e based on Taylor (2002a)

## Data issues

A number of data issues arise from the methodology employed here, as well as from the nature of the data itself. Firstly the geographic approximations and estimates used are subject to some error, mainly due to boundary estimations. The Statistical Local Areas shown in Figure 1 are themselves an approximation of the arid zone—the boundary between arid and semi arid is only loosely defined, based on rainfall levels and evaporation (e.g. Morton *et al* 1995) or vegetation (CSIRO 2004). While Census data is perhaps the most reliable in that it attempts to capture all residents, it is still subject to the interpretation of questions by respondents. In particular, Indigenous population counts are prone to a number of subjective assessments, most notably that of self-identification (Dumbrell 2000; Ross 1997) and a range of other assumptions about the Indigenous population including migration, Indigenous births and deaths and coverage issues (Shahidullah & Dunstan 2000).

With the NCVER data subsets obtained, the low response rate for the desert region means that any comparative or even internal analysis is of questionable value. For the student outcomes surveys, thirty of the 52 postcodes covering the desert region recorded zero respondents for both

module completers and graduates. Overall for the 2004 Student Outcomes Survey, there were only 122 module completer responses and 242 course completers. These figures represent a relatively small proportion of the 910 completions reported by NCVET for the desert region for a comparable period. The voluntary nature of the surveys is itself an issue for the integrity of the data, as is the nature of the survey as a self-administered, mail back survey. The complexity of the survey would naturally exclude many non-English speaking Indigenous trainees and others with low levels of literacy and numeracy.

Part of the aim of this project is to assess what is happening in the ACE sector. This is particularly problematic. Nationally there is a myriad of providers, each with their own methods for evaluating performance (Clemans *et al* 2003). ACE programs are often conducted with little or no external financial support and some jurisdictions do not have an overseeing ACE body (such as Northern Territory and Western Australia). We have therefore not attempted—at this stage of the project—to capture ACE data for the desert region.

## Where is the desert?

Figure 1 above shows the Statistical Local Areas defined as the desert for the purposes of this study. While any definition of the desert will be subjective, this delineation is based on earlier work undertaken by John Taylor (2002a) into population futures for desert Australia. While he considers both arid and semi arid zones, we have limited our analysis to the arid zone.

The desert comprises 45 per cent of Australia’s land mass. Table 1 shows key demographic statistics for the desert region based on the geographic areas of Figure 1 and ABS Census data. At the time of the 2001 Population and Housing census, the reported residential population was 163,405 with 33,186 of these Indigenous people. While recognising that issues exist with under-enumeration in remote desert Australia (Taylor 2003a) Indigenous people comprise one fifth of the total desert population—nearly one third for youth aged 15 to 24—compared with around two per cent of the population nationally. This proportion is predicted to increase to 23.7 per cent by 2016 with a 34 per cent increase in the prime working age cohort—25-64 years (Taylor 2002a:vi). In contrast the population of non-Indigenous people in the desert region has been decreasing since 1986 (Taylor 2003a).

**Table 1. Key demographic statistics for the desert based on geographic regions shown in Figure 1 and ABS Census data**

	Indigenous	Non-Indigenous	Total population
Population	33186	130219	163405
Population aged 15+	20509	95817	116326
Population aged 15 to 24	6261	13425	21436
Change in population since 1991	24.0%	-2.2%	2.1%
Per cent of population that speaks an Indigenous language	54.6%	0.2%	11.6%
Average household size	3.9	2.6	3.1

Sources: ABS 2002a, 2003e

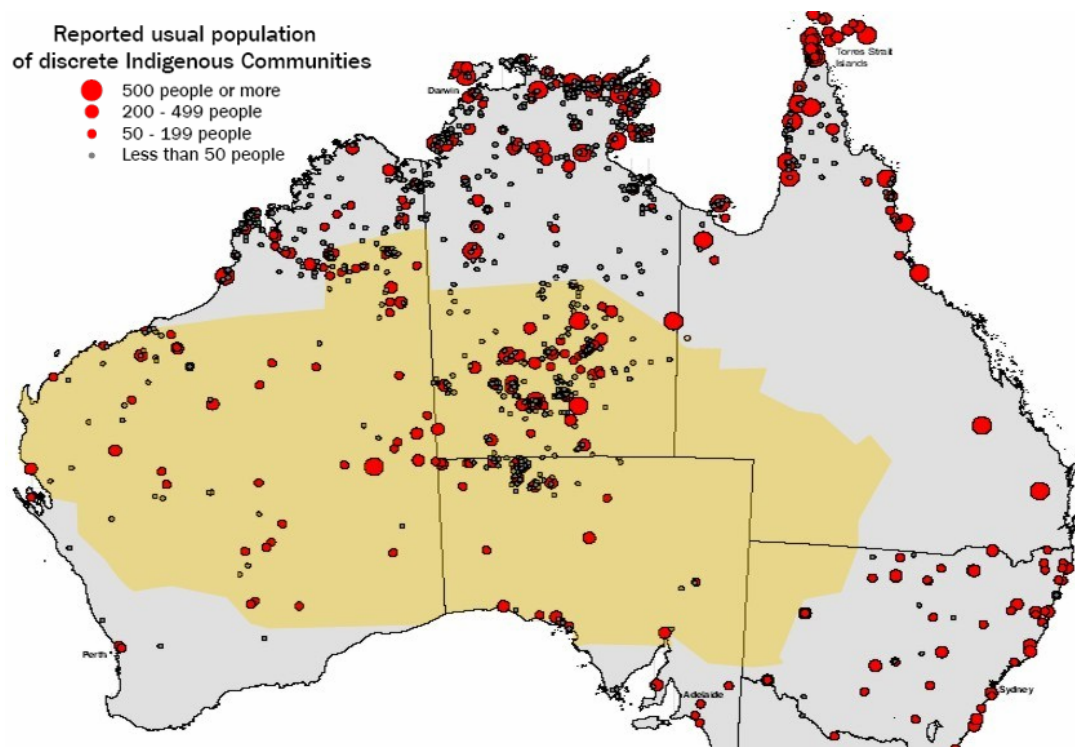
The settlement patterns of Indigenous and non-Indigenous people across the desert region diverge quite significantly. While the majority of non-Indigenous people reside in the key service centres such as Alice Springs or Halls Creek, or in mining towns, Indigenous peoples are highly dispersed across the region residing in small remote communities.

Analysis of the 2001 Community Housing and Infrastructure Needs Survey (ABS 2002c) enables us to identify 457 discrete Indigenous communities within the desert region with a combined population of 28,053. A discrete Indigenous community is defined by the ABS (2002c:87) as a

geographic location, bounded by physical or cadastral (legal) boundaries, and inhabited or intended to be inhabited predominantly (i.e. greater than 50 per cent of usual residents) by Aboriginal or Torres Strait Island peoples, with housing or infrastructure that is managed on a communal basis.

Figure 2 shows an approximation of the desert region as an overlay on a map of discrete Indigenous communities according to CHINS. Note that for the purposes of this study there are no discrete Indigenous communities in desert areas of Queensland and New South Wales.

**Figure 2. Desert region overlay of CHINS communities**



Source: Adapted from ABS 2002c

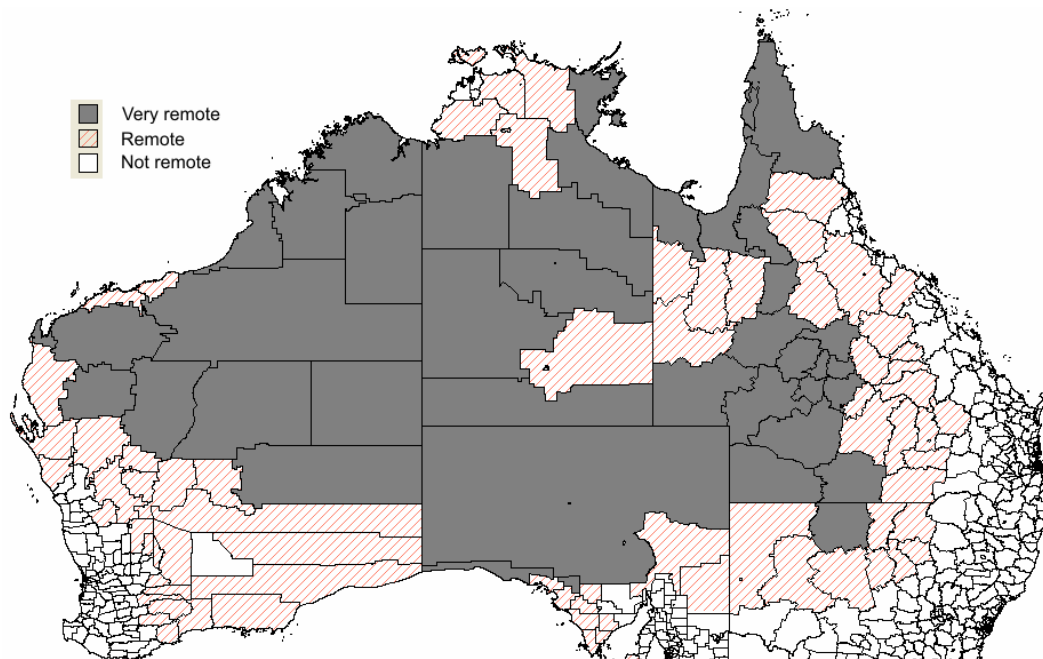
Seventy-two per cent of discrete Indigenous communities in the desert region have a population of less than 50. The Northern Territory has the highest numbers of communities with less than 50 people and Western Australia has the largest number of communities with a population of 50 or more. No discrete Indigenous community in the desert region has a population greater than 1000, and time series analysis of population growth patterns for the larger desert communities indicate a threshold size of around 500 (Taylor 2002b). Availability of potable water in desert areas as well as the stresses experienced by co-location of diverse language and family groupings would seem to play some role in limiting population size. The dispersal of these communities, their distance from major service centres and their small size raises considerable issues for the delivery of services. As noted by the Human Rights and Equal Opportunity Commission (2001:6)

The geographic dispersal of Indigenous people in Australia has implications for social policy. Australia's population is highly urbanised. In 1991, around 85 per cent of Australians lived in populations of 10,000 or more. The remaining 15 per cent live in small country towns, on farms or in remote settlements. Australia's largest settlements occupy less than one per cent of the nation's land area. It could be argued on this basis that many people in Australia are less able to appreciate what is required to deliver sustainable services in remote settlements.

## Remote Australia and remote desert Australia

The 2002 ABS National Aboriginal and Torres Strait Islander Social Survey (ABS 2004a), here referred to as the Indigenous Social Survey (ISS) enables us to compare remote desert Australia with remote Australia generally across a range of indicators. As many data sets relevant to Indigenous peoples utilise the Accessibility/Remoteness Index of Australia (ARIA) identifying diversity within and between regions considered remote is important. Golding and Pattison (2004:110) have argued that inequity is “not simply an issue of the ‘urban to rural’ continuum but manifests as differences in local, sub state and regional economies”. The following analysis of the ISS data enables a comparison between the desert region and other remote regions of Australia. Figure 3 shows the extent of remote and very remote areas of Australia for desert jurisdictions.

**Figure 3. Remote and very remote ASGC 1996 Statistical Local Areas (SLAs) of desert jurisdictions**



Source: ABS 2003e using 1999 ARIA values from DHAC 1999

The desert region is effectively a subset of the greater remote and very remote regions identified above and spatially accounts for a little over a half of such regions. In terms of population however, the desert regions comprises less than a third of the total Indigenous population of remote Australia. The smaller population and the dispersed settlement patterns of the desert regions is discussed below.

Key differences between desert and other remote areas can be elicited from the data. Generally, employment and education opportunities in the desert region are less than what might be expected in other remote parts of the same jurisdictions. Attainment of Certificate or Diploma qualifications tend to be much lower in desert regions as is Completion of Years 11/12 although there are notable jurisdictional differences with the latter. The proportion of Indigenous peoples who speak an Indigenous language is similar across desert and other remote areas (54.4 and 54.6 per cent respectively) suggesting that ‘cultural issues’, for which language is often read as a proxy, is not inevitably a barrier to educational attainment.

Overall the data suggest that ‘desert’ is more like ‘remote’ than ‘remote’ is like ‘non-remote’ but there are differences between desert areas and other remote areas. Similarly, there are differences between remote areas in different jurisdictions with South Australia, Western Australia clearly at a disadvantage compared to New South Wales and Queensland. Remote areas in the Northern Territory and particularly in the desert region appear the most disadvantaged.

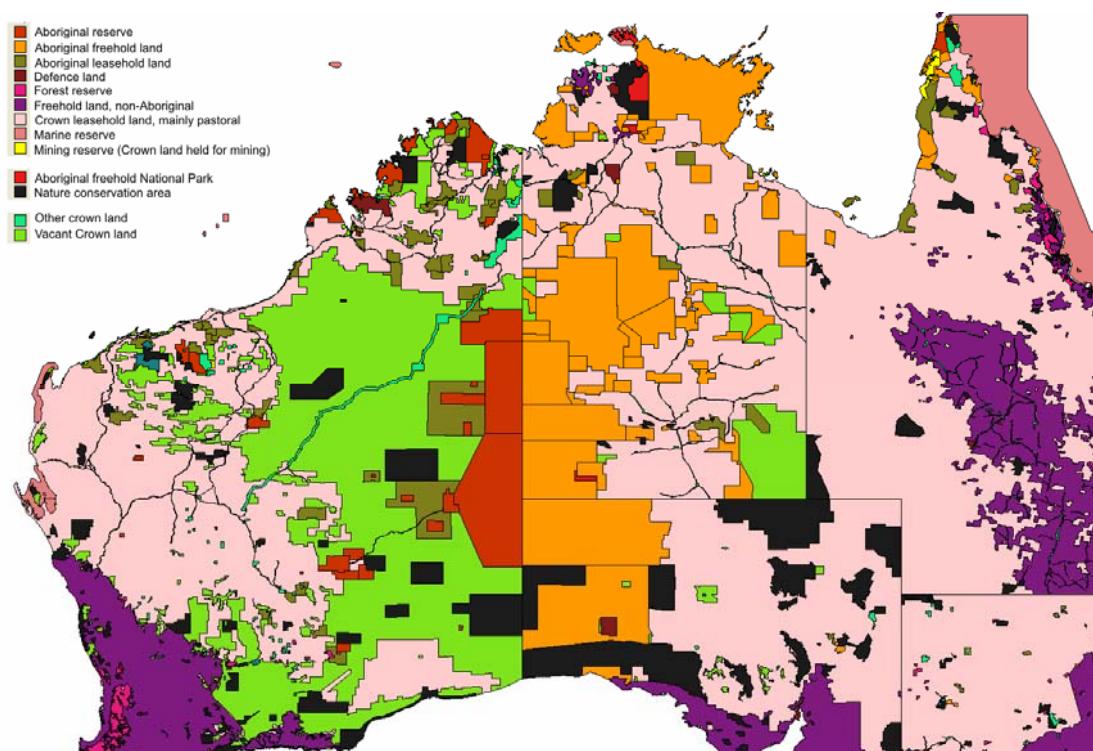


## Settlement patterns and mobility

Much of the history of Indigenous settlement since colonisation consists of the expropriation of land from its traditional owners, and the relocation of Indigenous people to new settlements. The majority of today's larger settlements or 'communities' were initially established as ration stations or missions, under policy regimes firstly of protection, then assimilation and more recently welfare dependency (DEH 2001; Pearson 2001, 2004; Rowse 1998). As noted by Taylor (2003a:9) "as such, they required no modern economic base, nor have they subsequently acquired one, at least not in a manner that is sustainable beyond the provisions of the welfare state". Thus these settlements can be described as 'artificial' in the sense that they were established by outside authorities and not driven by the factors that usually underlie settlement establishment such as proximity to resources, employment or markets. Nevertheless, many of these settlements did supply a pool of workers for the pastoral and other local industry and did facilitate some ongoing connection to country.

In the past 30 or so years, and heralded by the era of so called self determination, there has been a substantial transfer of land across desert Australia to Indigenous ownership under, for example, the 1976 Northern Territory Land Rights Act and the 1981 Pitjantjatjara Land Rights Act. Significant tracts of land have been and continue to be purchased by the Indigenous Land Corporation and more are being claimed under Native Title (NNTT 2004). Figure 4 shows land tenure across desert Australia in 1993. While not showing recent additions under Native Title determinations, it still reflects the vast areas owned or controlled by Indigenous people in the desert.

**Figure 4. Land tenure, 1993**



Source: Geoscience Australia 2004

The history of settlement across the desert region is relatively recent. Holcombe (2004) for example, identifies that first contact with some Pintupi people from the western deserts of central Australia occurred as late as the 1980s. The predominantly land based enterprises and activities Indigenous people were accommodated within (i.e. pastoral work) and the persistent land rights activism that saw a very early rise to what has been called the homelands movement (1960's) as



well as recognition of traditional rights to land, has resulted in unique patterns of settlement and persistent expressions of cultures and traditions. In a broad sense the homelands movement has always been about Indigenous people resettling their traditional country and this escalated as government policy and land tenure regimes shifted throughout the 1970's and 1980's (HREOC 2001; Taylor 2003a).

The high numbers of communities of less than 50 people across the desert identified in CHINS are a clear portrayal of the extent of this movement. Whilst it can be said that the homelands movement has facilitated ongoing connections to country and synergies between traditional living arrangements and the more contemporary family groupings within homelands, it has also raised significant difficulties for the provision and maintenance of the type of basic services deemed necessary for healthy and safe living – housing, water, sanitation and power supply. Furthermore, small numbers, limited facilities and access difficulties indicative of homeland living, compound any provision of education services. However, homelands also provide a “safer, healthier and culturally more satisfying lifestyle, free of the social stresses, alcohol abuse, petrol sniffing and domestic violence of some of the larger communities and towns” (McDermott *et al* 1998:653). These stresses are often the very factors that impact on the effectiveness of teaching and learning in larger communities (NTG 2004). The conundrum for education in these environs is how to bridge the tensions between policies predicted on assumptions about student numbers, available facilities and work opportunities and the realities of people and place in the desert.

As valuable as it is to understand Indigenous settlements patterns across desert Australia, it is important to recognise that assuming permanent domicile of Indigenous people within one community is a misnomer. As noted by John Ah Kit (2003a), Indigenous people have always moved and will continue to move socially, culturally and economically across a series of overlapping and interconnected regions, including cross borders and jurisdictions.

The following tables based on the 2001 CHINS data give some indication of the extent and frequency of these patterns of mobility. In Table 2, while the data is limited to the 125 communities across the desert region with populations greater than 50, it shows that 39 per cent of communities in South Australia, 48 per cent of communities in Western Australia and 21 per cent of communities in the Northern Territory experienced population increases (for two weeks or more) greater than 50 per cent of usual residence population.

**Table 2. Desert communities with more than 50 people, population change (for two weeks or more) in the last 12 months**

Jurisdiction	Per cent change in population during the last 12 months					Total communities
	Nil	Up to 50%	50% to 100%	Above 100%	Not stated	
South Australia	11.1	50.0	22.2	16.7	0.0	18
Western Australia	21.7	30.4	32.6	15.2	0.0	46
Northern Territory	32.8	42.6	13.1	8.2	3.3	61

Source: CHINS 2001 data

Table 3 shows reasons for the population increases in communities of 50 or more. More than half of all communities and nearly three quarters of communities in South Australia reported increases because of cultural reasons. Sporting events were the second most important reason with more than one third of Northern Territory communities reporting increases for this reason. Holidays and social visits also figured prominently, particularly in South Australia.

**Table 3. Reasons for largest increase in population (for two weeks or more) during the last 12 months by jurisdiction for communities with 50 or more people**

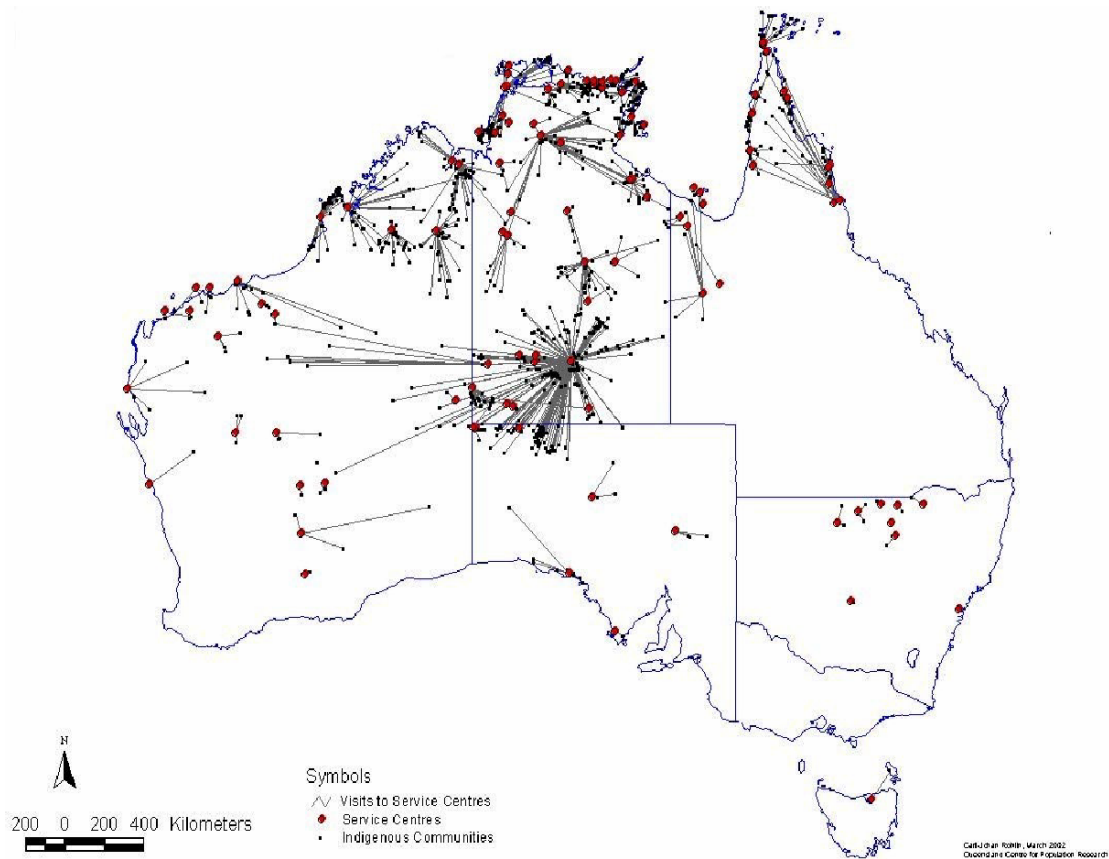
Reasons for largest increase in population (for two weeks or more) during last 12 months	Per cent of communities with 50 or more people		
	South Australia	Western Australia	Northern Territory
Cultural reasons	72.2	54.3	54.1
Wet season	5.6	15.2	16.4
Dry season	0.0	2.2	0.0
Sporting recreational event	27.8	23.9	37.7
Holidays/visiting	44.4	15.2	29.5
Seasonal work	0.0	4.3	0.0
Better facilities	5.6	0.0	0.0
Meetings	0.0	2.2	0.0
Other reasons	0.0	4.3	3.3
No increase	11.1	21.7	32.8
Total communities	18	46	61

Source: CHINS 2001 data

There is some limited research on Indigenous mobility patterns that elucidate the complexity and persistence of this ‘underbelly’ of movement across the desert and beyond. Peterson (2004) postulates that this mobility “is fundamental to an Aboriginal individual’s social identity”. Certainly it would appear that across the desert region connection to country and the cultural and social processes that shape the spatial and personal expressions of such connections are strong. Furthermore, the varying array of resource investments into Aboriginal communities, and sporadically, the investments in homelands developments, has spawned a technologically facilitated (Toyotas more than telephones) mobility that has escalated over the past 20 years or so (Taylor & Bell 1999). While much of this mobility converges within what has been termed the Indigenous domain, there are increasingly external push and pull factors that influence mobility patterns. These tend to emerge at the cultural interface. Taylor (2003a) has identified that the detachment of remote communities from services—for example banking facilities—itsself generates substantial mobility. He goes on to identify that many of the larger service centres across desert Australia, such as Alice Springs, have significant catchment populations. Whether to access banks, larger or specialist shops, hospitals or medical specialists or education, the pull towards such service centres would seem to reflect increasing mobility rather than relocation. Indeed according to the 2001 ABS census data, most desert regions report very low rates of population movement as defined by the numbers remaining at the same address over the previous one to five years (ABS 2002a).

Figure 5, below, taken from Taylor's paper (2003a:14), gives some estimation of the intercultural pull factors affecting mobility patterns, in this case, access to banking facilities.

**Figure 5. Journey to service centres: Discrete communities in remote Australia, 1999**



Source: Taylor 2003a, (p.14) using ABS 1999 CHINS confidentialised unit record file

There is little in the literature that explicates the association between the type and nature of educational services to Indigenous desert peoples and patterns of mobility. Some reports comment on issues of attendance (HREOC 2001; NTG 2004) others discuss the need for flexibility for cultural reasons—ceremonies and sorry business (Boston 2003). Most foreground the need to improve attendance, embrace community ownership and be more ‘culturally appropriate’ in content and delivery to encourage greater consistency in participation and outcomes (ANTA 2004; HREOC 2000). However, the reality of mobility begs perhaps a deeper consideration of educational access and delivery models across desert Australia.

# Services, infrastructure and access

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The 2001 CHINS data enables a closer look at the make up of discrete Indigenous communities across the desert region. Developing an understanding of the context in which the teaching and learning facilitated by VET and other educational sectors operates and is applied, is arguably crucial to improved and sustainable outcomes for Indigenous desert peoples in the places where they live.

In many ways housing and infrastructure services depict the major type of investment supplied by the mainstream to discrete Indigenous communities. On remote Indigenous communities the only permanent housing is that owned and managed by Indigenous housing organisations. Recognition of an association between high rates of respiratory and infectious diseases and poor housing and environmental health conditions has led to an increased focus on improving the functionality and design of health hardware and indeed housing and infrastructure on remote communities (FaCS 2003a, 2003b; HREOC 2001). This focus exists alongside estimates of an \$850 million backlog in housing need on remote communities in the Northern Territory alone (Ah Kit 2003b) and limited involvement of Indigenous desert peoples in training in the construction field (NCVER 2003).

The following information, drawn from an analysis of 2001 CHINS data for the desert region paints a picture of the day to day realities facing Indigenous people living on discrete communities across the desert region, and indeed the issues which inevitably impact on educational delivery, outcomes and applicability.

## Housing and infrastructure

Almost one in ten dwellings on discrete Indigenous desert communities are in need of replacement with a further one in seven needing major repairs. With an average household size of 4.3 people per dwelling, the stress on infrastructure is apparent particularly in the light of population growth projections. Approximately half of the 457 discrete desert communities have access to one public payphone. Access to private phones is almost negligible (ACA 2004). Discrete desert communities in the Northern Territory have significantly less access to telephones than discrete communities in Western Australia or South Australia.

## Access to education services

Access to primary and secondary education is undoubtedly a predictor of access to and success in post compulsory education and training. The following tables show access to such education for discrete communities within the desert region compared to all discrete communities. In Table 4 approximately half of the discrete communities within the desert region and with populations greater than 50 have a primary school located within the community. In South Australia desert regions, smaller discrete communities (less than 50 population) would appear to have the better access to primary schools compared with smaller communities in Western Australia and the Northern Territory. Overall, desert communities in the Northern Territory experience greater disadvantage in accessing a primary school.

**Table 4. Desert communities with access to primary schools compared with all discrete Indigenous communities by jurisdiction**

Jurisdiction	Primary school access: Desert communities			Primary school access: All discrete communities		
	Within community	Within 50km	More than 50km	Within community	Within 50km	More than 50km
<i>Per cent of communities with less than 50 people</i>						
South Australia	1.5	83.1	15.4	2.9	82.9	14.3
Western Australia	8.6	50.0	41.4	4.0	55.0	41.1
Northern Territory	7.7	55.5	34.4	9.8	46.5	41.5
Total	6.6	59.9	31.9	7.4*	53.0*	38.4*
Total communities <sup>+</sup>	22	199	106	66*	471*	341*
<i>Percent of communities with 50 or more people</i>						
South Australia	55.6	38.9	5.6	50.0	46.2	3.8
Western Australia	69.6	28.3	2.2	65.4	30.9	3.7
Northern Territory	52.5	44.3	3.3	62.9	33.9	3.2
Total	59.2	37.6	3.2	56.0*	40.1*	3.1*
Total communities <sup>+</sup>	74	47	4	183*	131*	10*

Note: \* includes data from all jurisdictions + excludes distance not stated

Source: CHINS 2001 data

Table 5 shows desert communities' access to secondary schools up to Year 10 compared with all discrete communities by jurisdiction. As might be expected none of the smaller desert communities had access to high schools. However clear jurisdictional differences emerge for all communities when comparing access within 50km from the community. More than three-quarters of all small South Australian communities have access to high schools within 50km. This compares with half of Western Australian communities and less than a quarter of Northern Territory desert communities. It appears that desert communities are in a slightly better position than other communities. About one-sixth of all discrete smaller Northern Territory communities have access to high schools within 50km.

**Table 5. Desert communities with access to secondary schools to Year 10 compared with all discrete Indigenous communities by jurisdiction**

Jurisdiction	Year 10 school access: Desert communities			Year 10 school access: All discrete communities		
	Within community	Within 50km	More than 50km	Within community	Within 50km	More than 50km
<i>Per cent of communities with less than 50 people</i>						
South Australia	0.0	76.9	23.1	0.0	78.6	21.4
Western Australia	0.0	50.0	50.0	0.5	53.5	46.0
Northern Territory	0.0	23.4	72.7	0.0	16.5	81.1
Total	0.0	38.6	59.0	0.1	35.1	64.6
Total communities <sup>+</sup>	0	128	196	1	302	574
<i>Per cent of communities with 50 or more people</i>						
South Australia	22.2	22.2	50.0	15.4	42.3	38.5
Western Australia	41.3	34.8	23.9	39.5	38.3	22.2
Northern Territory	8.2	34.4	57.4	15.3	27.4	57.3
Total	22.4	32.8	44.0	20.2*	40.7*	37.9*
Total communities <sup>+</sup>	28	41	55	66	133	124

Note: \* includes data from all jurisdictions + excludes distance not stated

Source: CHINS 2001 data

Consistent with patterns shown in Table 4 Western Australian larger communities are in the best position for access to Year 10 secondary schools with 41 per cent having a school within their

community. By contrast, only about one in 12 Northern Territory larger communities have a secondary school to Year 10 in their community. Overall, the desert communities are broadly representative of all communities within the jurisdictions, with the exception of the Northern Territory, which has half the rate of secondary schools in larger communities in desert communities compared with the jurisdiction as a whole.

## Senior secondary schools

Table 6 shows desert communities' access to secondary schools up to Year 12 compared with all discrete communities by jurisdiction. At this level of education only a handful of larger communities—one in South Australia and seven in Western Australia—have access to senior secondary schools. In percentage terms this is broadly consistent with all communities across each jurisdiction. Senior secondary access appears to be easier for smaller Western Australian communities (both desert and all discrete communities) than for the other jurisdictions.

The same applies for the larger communities, with nearly half of all communities in Western Australia (desert and all discrete communities) having access to senior secondary school within 50km. The position of South Australian desert communities at this level appears worst, with only about one in six communities having access to senior secondary education within 50km, compared to nearly half for Western Australia and one in three for Northern Territory communities.

**Table 6. Desert communities with access to secondary schools to Year 12 compared with all discrete Indigenous communities by jurisdiction**

Jurisdiction	Year 12 school access: Desert communities			Year 12 school access: All discrete communities		
	Within community	Within 50km	More than 50km	Within community	Within 50km	More than 50km
<i>Per cent of communities with less than 50 people</i>						
South Australia	0.0	16.9	83.1	0.0	22.9	77.1
Western Australia	0.0	41.4	58.6	0.0	30.7	69.3
Northern Territory	0.0	17.2	81.3	0.0	11.4	87.4
Total	0.0	21.4	77.7	0.0	17.1	82.2
Total communities <sup>+</sup>	0	71	258	0	152	731
<i>Percent of communities with 50 or more people</i>						
South Australia	5.6	16.7	72.2	3.8	38.5	53.8
Western Australia	15.2	32.6	52.2	13.6	34.6	51.9
Northern Territory	0.0	34.4	65.6	2.4	26.6	71.0
Total	6.4	31.2	61.6	5.2*	39.1*	54.4*
Total communities <sup>+</sup>	8	39	77	17*	128*	178*

Source: CHINS 2001 data

Note: \* includes data from all jurisdictions + excludes distance not stated

Table 7 shows communities' access to education services other than schools for desert communities and compares this with all discrete communities from all jurisdictions. Only one third of Northern Territory communities have access to other educational services compared with nearly two thirds of communities in South Australia and Western Australia. Of note is the 50% of SA communities with access to TAFE courses. The lower rate of TAFE services is probably explained to some extent by the lack of a TAFE brand in the Northern Territory (which shows a higher rate for 'other adult education'). Access to services in Western Australia and South Australia is comparable to the average for all discrete communities nationally.

**Table 7. Desert communities of 50 or more people with access to educational services other than schools, by jurisdiction compared with all discrete communities**

Type of educational service	Communities of 50 or more people with access to other educational services					
	South Australia	Western Australia	Northern Territory	All desert communities	Total desert communities with educational services other than schools	All discrete communities from all jurisdictions
Pre-primary	44.4	56.5	21.3	37.6	47	45.9
Homework centre	5.6	2.2	1.6	2.4	3	11.3
TAFE courses	50.0	19.6	14.8	21.6	27	22.6
Other adult education	0.0	6.5	13.1	8.8	11	6.4
Other education service	11.1	4.3	3.3	4.8	6	8.0
Community has other educational service	66.7	65.2	32.8	49.6	62	55.7

Source: CHINS 2001 data

The Northern Territory's recent Review of Secondary Education undertaken in (NTG 2004) provides a detailed analysis of educational options and outcomes for Indigenous students. Whilst covering the Territory as a whole it is likely that many of its findings are applicable across the desert region. The Report identifies that the majority of Indigenous students are withdrawing from secondary education (or its post primary equivalent) by years 8 and 9. It further states that even where young adults are experiencing success, such success "can seem hollow when the transition from school to 'what' looms as large for those in remote regions who do well as for those who disengage"(p. 166). Occasional VET programs on remote communities are often the only post primary education on offer on site and assume uneasily the functions of re-engagement and basic education alongside mainstream work oriented training.

From the data available it is difficult to ascertain reasons for jurisdictional differences in educational access. However as compulsory schooling is largely a State or Territory responsibility it is likely that the reported differences reflect differing State policy regimes. They may also indicate the relative cost burden experienced by jurisdictions such as the Northern Territory where Indigenous people are 25.1% of a small total population base compared to South Australia or Western Australia where Indigenous people comprise 1.6% and 3.2% respectively of larger total populations.

## Higher education

Table 8 shows Indigenous higher education participation and bachelor qualification levels for the desert region. Participation data is based on regional DEST data from 1999 statistics (DEST 2001) and while this is not current, it does give an indication of the under-representation of

Indigenous people studying at higher education levels. Less than one tenth of all students were Indigenous. As noted earlier, one quarter of the desert population are Indigenous. Analysis of the DEST detail reveals that of the 228 Indigenous students, approximately one quarter (59) were studying with Batchelor Institute. Qualification rates suggest that Indigenous people are less than 10 per cent as likely as non-Indigenous people of the desert to hold a bachelor degree.

**Table 8. Higher education participation and qualifications, Indigenous desert population**

Indigenous higher education students 1999	Jurisdiction					
	NSW	NT	QLD	SA	WA	Total
Mode/place						
Moved elsewhere to study	0	10	10	0	8	28
Moved into area to study	0	2	1	0	1	4
Studying in area, on campus	6	84	14	1	13	118
Studying off campus	3	25	9	3	38	78
Total Indigenous students	9	121	34	4	60	228
All students	377	713	438	115	926	2569
Per cent Indigenous students	2.4%	17.0%	7.8%	3.5%	6.5%	8.9%
<b>Bachelor qualifications 2001</b>						
Per cent of Indigenous working aged with bachelor qualifications	1.7%	0.7%	0.0%	0.6%	0.6%	0.7%
Per cent of non-Indigenous working aged with bachelor qualifications	4.7%	11.7%	6.2%	8.0%	8.7%	8.5%

Sources: Adapted from DEST 2001 by desert postcode, ABS 2002b by desert SLA

Pathways to further education or employment via higher education for Indigenous desert people are very limited. However, the Northern Territory seems to be having greater success in attracting students than other jurisdictions (particularly through an Indigenous Institution). Undoubtedly the poor access to and outcomes from compulsory education underpins higher education participation rates. To what extent other factors such as access to ABSTUDY, the payment of HECS fees and cultural sensitivity or safety issues within institutions are also at play, is difficult to ascertain although recent literature (ACDE 2002) makes reference to these matters.

## Community Development Employment Program

Taylor (2003b) estimates that 60 per cent of total Indigenous income is from welfare payments. According to ABS 2001 census, of the 33,186 Indigenous people living across the desert region 4055 are employed in the Community Development and Employment Program (CDEP) and 3297 have other forms of employment. Overall, 42.5 per cent are in the labour force (including CDEP). Almost 12 per cent have never attended school. These figures highlight the stark challenges facing VET providers and other post compulsory education services in addressing both the educational neglect and access difficulties experienced by desert Indigenous peoples throughout the compulsory years of schooling, and 'fitting' their offerings to the realities of desert life. While there is some argument about the employment status attached to CDEP (ACOSS 2003; Ah Kit 2003; NLC 2003; NTCOSS 2004), it does form the main type of 'work' on offer to Indigenous desert people and arguably does provide significant positive socio-economic benefits (Altman & Gray 2000). The following data, drawn from Census 2001 (ABS 2002a, 2002b) and CHINS 2001 (ABS 2004a) enables us to examine more closely the nature of CDEP.

Data from the 2001 ABS census for the desert regions shows that participation in CDEP is highest in very remote areas (57 per cent) and there is very little CDEP activity in New South Wales and Queensland. In the South Australia, 63 per cent of the Indigenous labour force is engaged in CDEP employment, in Western Australia the participation rate is 49 per cent while in



the Northern Territory the participation rate is 42 per cent. Participation in work other than CDEP is less than 20 per cent for the same very remote areas. The highest rates of non-CDEP employment are found in New South Wales and Queensland as well as in the larger service centres of South Australia, Western Australia and the Northern Territory and in a selection of mining communities.

Data from CHINS 2001 for the desert region shows that while almost all communities of 50 or more people in South Australia and Western Australia had CDEP, the program operated in less than two thirds of larger communities in the Northern Territory. The data also indicates that around 90 per cent of communities with CDEP utilised the program to provide services in the areas of rubbish collection, housing maintenance and public facility maintenance. A recent study by Misko (2004) into the role of CDEP in rural and remote communities identifies that CDEP participants are also involved in childcare, aged care and a range of community service work in drug and alcohol centres, safety houses and women's shelters (p. 7). In essence CDEP activities could be seen to be providing the backbone of essential services and community care on remote desert communities—services that would be otherwise unavailable on remote communities. CDEP activities have also been critical to supporting some emerging enterprise and commercial ventures such as arts and crafts, cattle, vegetable and citrus and furniture making—activities, which have to some extent been described under the heading of 'capacity building' (NTCOSS 2004:61).

One of the performance targets for the CDEP scheme is to provide training for participants. Misko (2004:7-8) identifies that the majority of training is either on the job or informal with most formal training comprised of short courses tailored towards specific skills sets. More recently policy changes have emphasised the role of more urban CDEP programs as employment centres, providing the skills and experience to support transition to non-CDEP work (Champion 2002). In remote areas, where the bulk of CDEP programs exist, this transition to work role begs consideration of the type of work and/or livelihoods activity possible. Rather than attempting to transplant mainstream industry occupations into settings that either do not have the critical mass to support particular forms of specialisation or where future types of work could indeed be seen as emerging rather than extant, emphasis needs to be placed on innovation in learning and what counts as work. Altman (2003) outlines a range of such emerging opportunities in the area of land and biodiversity management. The vast and substantial proportion of Indigenous landholdings across the desert region and the cultural values and knowledge held in that land, perhaps offers a basis upon which Indigenous desert livelihoods for the future can be imagined.

## Desert community facilities

According to CHINS 2001 data, around 85 per cent of all larger (greater than 50 population) desert communities have a least one community facility, most commonly an administration building. Desert communities in the Northern Territory are less likely to have facilities and are particularly lacking in facilities for youth compared to other jurisdictions. Overall, South Australian desert communities have access to a greater range of facilities than other jurisdictions including administration buildings, meeting halls, child care centres, arts centres, women's centres and youth centres. In order to deliver services such as training on site in remote communities access to a range of appropriate facilities, including training rooms and accommodation is necessary. The greater access of communities in South Australia to post compulsory education services may indeed be related to the greater range of facilities available on these communities.

CHINS 2001 data also shows that a little over of half of discrete desert communities had access to a community health centre and around one third had access to a chemist or dispensary. However, more than two thirds had access to emergency air services. The latter access, while critically important given the health status of Indigenous peoples, may also be another factor

underpinning mobility patterns. While people can get to emergency medical treatment, returning to country once treatment is over is not so easy. Organisations like Tangentyere Council in Alice Springs run 'return to country' programs but also report that there are significant numbers of Indigenous peoples camping in the river, picked up for their daily renal or other treatment and dropped back off at their camp sites. Furthermore, many Indigenous peoples utilise 'book up' systems and often lodge their ATM cards or passbooks at the community store (McDonnell & Westbury 2001), meaning once in town, they do not have the financial resources to return home. Such realities tend to cause havoc to educational service delivery.

A study undertaken by Warchivker, Tjapangati and Wakerman (2000) into inter and intra community mobility in one central Australian community, identifies that between 25 per cent and 35 per cent of the community was mobile within a one year period. The most common reasons were 'business' and study with up to 12 per cent of the mobility patterns related to being in hospital, on dialysis or in gaol.

## Communication networks

Data from ISS 2002 highlights the difficulty Indigenous people living in remote areas of Australia experience in accessing transport with around one third experiencing some difficulty getting to places needed. CHINS 2001 also shows that on average it takes about two and a half hours to reach a major centre from a desert community. Such distances affect not only residents wishing to access services unavailable on their community but also service providers such as Registered Training Organisations (RTOs) delivering services on site.

Given the vast distances encountered across desert Australia, the importance of telecommunication looms. However the ISS 2002 shows that twice as many homes in remote areas compared with Indigenous Australia as a whole did not have a working telephone. In the Northern Territory less than one third of respondents reported having a working telephone at home. Similar patterns are also shown for computer use and internet access and these findings are consistent with the research to date into access and equity issues in online learning (AFLF 2001).

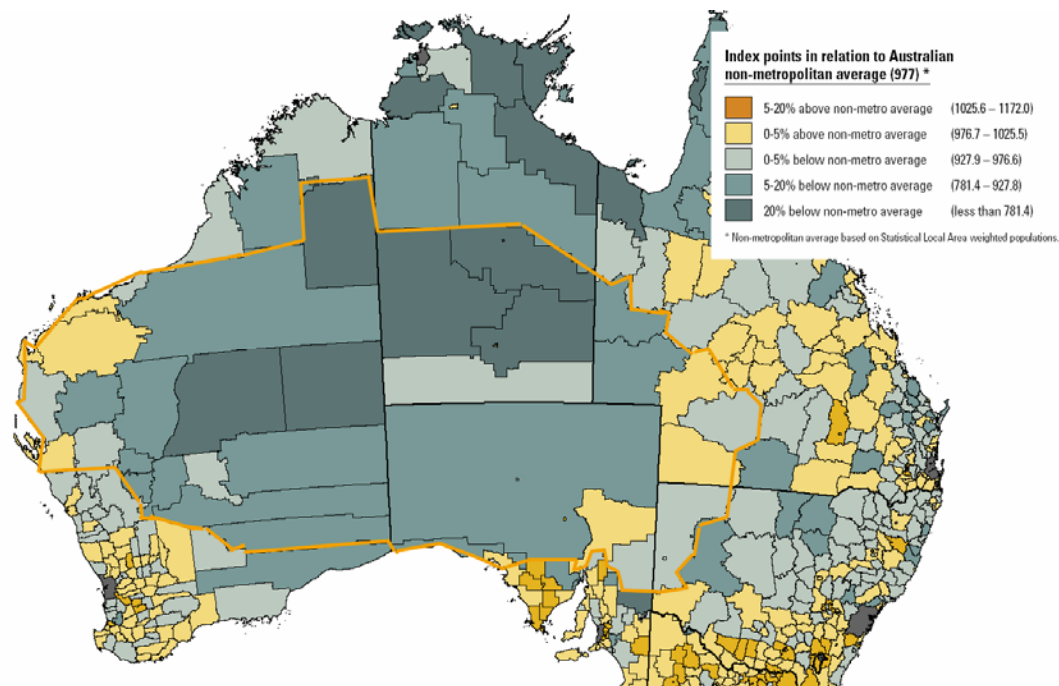
Computer and internet usage is dependent on reliable energy supplies as well as working satellite equipment, phone lines and computer hardware. CHINS 2001 data gives us some information about the source of and issues with electricity supply to discrete desert communities. All of the larger communities (greater than 50 population) had an electricity supply with more than half connected to the state grid and the rest having community diesel generators. By contrast one in ten smaller communities had no electricity supply and the remainder were also more likely to utilise solar/hybrid systems or domestic generators. Discrete desert communities are twice as likely to use solar/hybrid systems than discrete communities generally. Two thirds of desert communities reported up to 19 interruptions to supply over the previous year with 16 per cent reporting 20+ interruptions.

While solar/hybrid systems are used extensively it is important to note that these systems do not provide a limitless energy supply. The size of the panels and batteries will determine how much energy is stored and thus how much and for what it can be used. Given that the size of the system installed is usually determined by funds available rather than informed decisions about current and future energy use, power available would tend to be utilised for the essentials of food storage, lights, heating and cooling rather than the perceived luxury of surfing the internet (Lloyd *et al* 2000).

## Socio-economic status

Figure 6 below, drawn from the Bureau of Rural Sciences (Haberkmorn *et al* 2004) highlights the concentration of socio economic disadvantage across the desert region of Australia.

**Figure 6. Socio-economic index for areas (SEIFA)—Index of relative socio-economic disadvantage, 2001 (including an outline of desert area)**



Source: Haberkmorn *et al* 2004

Measurement of such disadvantage is not straightforward and involves value judgements based on relativities and many interrelated dimensions (ABS 2003f). However, socio-economic disadvantage is usually associated with groups highly dependent on welfare transfers, with low educational attainment and the inability to speak English well. Accessibility to mainstream services and economic opportunities is also considered important. The spatial fragmentation of Indigenous peoples across the desert is identified as presenting a barrier to mainstream participation but it is also a valued and necessary feature of the customary economic sector (Altman 2003b; Taylor 2003a).

As noted by Boughton and Durnan (2004:62) Indigenous peoples' participation in education is lower than non-Indigenous peoples in every sector apart from VET where overall, participation rates are higher. According to NCVET's Students and Courses data (2003) Indigenous students from remote areas of Queensland comprise 21.9 per cent of all Indigenous students enrolled in VET; from remote areas of New South Wales, 5.4 per cent; from remote areas of South Australia 15.6 per cent; from remote areas of Western Australia 47.6 per cent and from remote areas of the Northern Territory, 72.5 per cent. These represent extremely high participation rates, particularly given that Indigenous peoples comprise overall approximately 28 per cent of the population across remote Australia (Taylor 2003a).

**Table 9. VET students 2003 by jurisdiction and Indigenous status (within desert region)**

<b>Indigenous status</b>	<b>New South Wales</b>	<b>Queensland</b>	<b>South Australia</b>	<b>Western Australia</b>	<b>Northern Territory</b>	<b>Total</b>
Indigenous	9.4%	13.5%	32.3%	25.6%	42.2%	28.1%
Not Indigenous	75.0%	80.7%	59.5%	46.7%	52.6%	56.3%
Not known	15.5%	4.6%	8.2%	27.6%	5.3%	15.6%

Source: NCVET 2003 Students and courses data, special data request

For the desert region, as a subset of the greater remote region, Table 9 above shows participation rates are lower in the Northern Territory, Queensland and Western Australia, marginally higher in the desert areas of New South Wales, and significantly higher in the desert areas of South Australia. These figures allude to diversity within and between remote areas and jurisdictions.

# VET across the desert

According to 2001 Census data (ABS 2002a), four per cent of the Indigenous population (aged 15+) have a certificate qualification. This outcome appears at odds with the high participation rates and implies that participation does not necessarily lead to qualifications. The following tables and analysis summarise the results of National Centre for Vocational Education Research (NCVER) data provided for the desert region. The tables compare non-Indigenous with Indigenous data along with national vocational education and training data (NCVER 2003) and in some cases, Australian Bureau of Statistics (ABS) Census statistics (ABS 2002a, 2003a). It is noted that there are differences in the way NCVER and ABS collect data (ABS 2003g). In particular the National Centre for Education and Training Statistics notes problems associated with high non-response rates for AVETMISS Indigenous statistics along with Australian Standard Classification for Education (ASCED) implementation issues. Other more general issues relate to recording of data by postcode rather than by ASGC geographic classifications. The tables in this section, where both ABS and NCVER data are compared, should be read with these cautions in mind.

## Gender, age and language

The breakdown of desert VET data for gender is overall generally consistent with what might be expected from the national VET profile (Table 10). However, comparing Indigenous participation with non-Indigenous participation for males and females, the data suggests a slight over representation of non-Indigenous females and a slight over representation of Indigenous males, relative to the gender mix in the population.

**Table 10. Gender profile of VET students in the desert region, 2003 compared with Australia, 2003 and compared with the desert population profile, 2001**

Gender	2003 VET desert students, Indigenous	2003 VET desert students, non-Indigenous	2003 VET students, Australia	Desert Indigenous population 2001	Desert non-Indigenous population 2001
Male	52.2%	49.7%	51.2%	49.9%	55.1%
Female	47.5%	49.6%	48.8%	50.1%	44.9%
Unknown	0.3%	0.7%			
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: NCVER 2003 data (special data request), ABS 2003e

The age profile data (Table 11) suggests that younger Indigenous people are relatively over-represented in the desert data. While this skewing of the age profile is consistent with the younger age profile of the Indigenous population of the desert region it may also reflect specific programs in some jurisdictions that target 14-19 year olds (for example the Training for Remote Youth Program in the Northern Territory) and the comparatively lower accessibility to secondary education available to discrete desert communities.

**Table 11. Age profile of VET students, desert region compared with Australia, 2003**

Age	2003 VET desert students, Indigenous	2003 VET desert students, non-Indigenous	2003 VET students, Australia	Desert Indigenous age profile	Desert non-Indigenous age profile
19 years or less	29.1%	20.3%	21.3%	45.0%	28.2%
20-24 years	14.5%	12.1%	16.1%	9.1%	6.2%
25-44 years	39.8%	42.6%	37.7%	29.5%	35.3%
45-64 years	8.3%	20.8%	19.7%	12.4%	25.2%
65 years or more	0.8%	1.9%	1.9%	4.0%	9.1%
Not known	7.5%	2.3%	3.3%		
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NCVET 2003 students and courses data, special data request, ABS 2002a

Note: Table does not show students with unknown Indigenous status, reported to be 15.6 per cent for desert region

The NCVET desert VET data by language diverges from what might be expected at a national level and from what might be expected from the language profile of the Indigenous population of the desert region. The data shown in Table 12 suggest that Indigenous non-English speakers are under-represented in the VET data by a ratio of approximately 2:1. While nationally, non-English speakers are also under-represented in VET, at a higher education level 14.8 per cent of students do not speak English at home (DEST 2005), consistent with the data shown in the table below. One possible reason for this is that non-English speakers have a stronger educational background than Indigenous language speakers, which enables them to access higher education more readily. Another reason given in research for low uptake of VET among non-English speakers is lack of awareness and low perceived value given to VET training in terms of accessing employment (Miralles 2004).

**Table 12. Language profile of desert VET students compared with Australia, 2003 and the language profile of the Indigenous desert population, 2001**

Main language spoken at home	2003 VET desert students, Indigenous	2003 VET desert students, non-Indigenous	2003 VET students, Australia	Desert Indigenous population 2001	Australian population 2001
English	63.5%	85.3%	71.3%	44.5%	79.1%
Non-English	28.7%	4.3%	9.4%	55.5%	15.0%
Unknown (ABS not stated, overseas visitors)	7.8%	10.4%	19.2%		5.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: NCVET 2003 students and courses data (special data request), ABS 2003e

Note 1: Table does not show students with unknown Indigenous status, reported to be 15.6 per cent for desert region

Note 2: Some columns may not add correctly due to rounding

The under-representation of Indigenous vernacular speakers in VET highlights a further inequity of access and achievement within the remote desert region of Australia, and one generally hidden by the overall high participation rates. Proficiency in English literacy and numeracy skills has long been identified as a barrier to access and achievement in VET (ANTA 2000; DEST 2003; Collins & Lea 1999). The relationship between speaking an Indigenous language and poor English and numeracy skills has also been identified (Kral & Falk 2004; NTG 2004). However, the literature would suggest that it is not belonging to a non-English speaking background group per se that affects educational outcomes but the compounding effects of poverty, family circumstances, locational disadvantage as well as poor English proficiency (Volkoff 2004). For many Indigenous people across desert Australia the English language training requirements of VET programs present as yet another barrier to embedding a training culture into community life and integral to community aspirations.

## Field of study, skills held, industry of employment

Table 13 compares NCVET desert data with national data, skills held by residents at the 2001 Census, and employment in related fields. The latter comparison depends on a concordance of industry of employment categories with field of study categories, which is shown at Table 14. The table points to an undersupply of skills for the mining and health sectors. For health, while eight per cent held skills in that field and about 8 per cent were employed in related industries, less than five per cent of both Indigenous and non-Indigenous students were studying in that field. For mining, while 25 per cent of the population held skills in that field and 22 per cent were employed in related industries at 2001, less than 16 per cent of non-Indigenous and only nine per cent of Indigenous students were studying in that field.

**Table 13. Field of study profile, desert and national with comparisons for employment in related industries**

<b>Field of study</b>	<b>2003 VET desert students, Indigenous</b>	<b>2003 VET desert students, non-Indigenous</b>	<b>2003 VET students, Australia</b>	<b>2001 Field of study for those with qualifications in desert region*</b>	<b>2001 Per cent of desert workforce employed in related industries**</b>
Natural and physical sciences	0.5%	0.2%	4.1%	2.8%	0.8%
Information technology	1.4%	7.0%	3.7%	0.9%	
Engineering and related technologies	9.0%	15.9%	11.0%	25.4%	21.5%
Architecture and building	8.6%	2.6%	3.2%	5.2%	7.1%
Agriculture, environmental and related studies	9.7%	6.4%	2.3%	2.5%	6.3%
Health	4.4%	4.7%	15.1%	8.1%	8.2%
Education	4.5%	7.7%	2.5%	6.8%	6.5%
Management and commerce	11.7%	22.4%	19.9%	8.7%	21.9%
Society and culture	11.1%	9.4%	9.8%	5.3%	1.8%
Creative arts	5.3%	3.6%	5.4%	1.6%	
Food, hospitality and personal services	2.3%	7.3%	5.6%	4.7%	10.9%
Mixed field programs	21.8%	10.9%	17.4%	0.1%	15.0%
Subject only enrolment	9.7%	1.9%			
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>72.1%</b>	<b>100.0%</b>

Sources: NCVET 2004 (special data request), ABS 2003e

Notes:

\* Excludes 'not stated' and inadequately described

\*\* see concordance of fields of study with industries of employment, Table 14

The table shows some notable differences between Indigenous and non-Indigenous VET student groups, particularly in the fields of engineering, management and commerce and the food, hospitality and services sectors where Indigenous students are proportionally only about half the number of non-Indigenous students. Note also that these three sectors are where approximately half the desert jobs are. By contrast, Indigenous students make up the bulk of those studying in mixed field enrolments, subject only enrolments and creative arts.

**Table 14. A concordance of field of study with industry of employment**

Field of study	Industry of employment
Natural and physical sciences	Communication services
Information technology	
Engineering and related technologies	Mining, manufacturing, electricity, gas and water supply
Architecture and building	Construction
Agriculture, environmental and related studies	Agriculture, forestry and fishing
Health	Health and community
Education	Education
Management and commerce	Retail, wholesale, Finance
Society and culture	Cultural and recreational services
Creative arts	
Food, hospitality and personal services	Accommodation, cafes and restaurants, Personal and other services
Mixed field programs	Transport, Non-classifiable economic units, Not stated, Government and defence

Source: Table based on main fields of study associated with occupations available at <http://jobsearch.gov.au/training>

Between the 1970s and the 1990s significant numbers of Indigenous people were nominated by their communities to be trained for Aboriginal Health Worker roles. These community based jobs, while involving clinical skills and associated training, were largely conceived as a cultural broker role where health workers had responsibilities to integrate western and traditional health approaches and to manage the difficulties emerging from that integration (Batchelor Institute of Indigenous Tertiary Education 1997). In 1997 and as part of the National Training Reform Agenda, new standards for Aboriginal and Torres Strait Islander Health Worker competencies were introduced. The key change was that entry level for work as an Aboriginal Health Worker (AHW) was the attainment of Australian Qualification Framework (AQF) Certificate III level qualifications. A study into the literacy and numeracy requirements of the new qualifications (Every & Young 2001) identified that the community selection process and cultural brokering role of the AHW was compromised by the increased emphasis on higher level English Language Literacy and Numeracy skills. The study also noted that “there is also a trend towards people being replaced by interstate AHWs who can meet the narrow interpretation of LL&N in the AHW competency standard” (p. 21). It is possible the limited numbers of Indigenous peoples from the desert region undertaking VET qualifications in the Health field are related to the changes to such work initiated through the Training reform Agenda of the 1990s, however unintended. Given that employment opportunities on many communities are limited to the health and education sectors it is of some concern that such pathways are proving increasingly difficult for local people to access or that more and more health and allied health work is coming under the umbrella of CDEP.

Table 15 below, utilising ABS 2001 Census data shows correlation coefficients for employment and qualification variables with several social variables. With regard to employment this table suggests that of all the variables listed, the two largest factors affecting employment are language and household size. In other words, as Indigenous language speakers increase as a proportion of the Indigenous population, employment in CDEP tends to increase and employment in ‘other’ tends to decrease. The same relationship applies to household size. Interestingly the most significant factor influencing employment in CDEP is employment in ‘other’, such that there is almost a direct negative relationship.



**Table 15. Factors associated with qualifications, employment (CDEP) and employment (other), showing correlation coefficients (r) for each pair of variables**

Factor	r certificate qualifications	r employment other	r employment CDEP
Household size	-.435	-.588	+.598
Speaks Indigenous language	-.465	-.739	+.780
Did not attend school	-.536	-.485	+.471
Participation in the labour force	+.287	+.337	-.287
Employment (other)	+.563		
Employment (CDEP)	-.443	-.904	
Year 11/12 completion	+.438	+.546	-.443
ARIA	-.266	-.359	+.423

In a study of Indigenous people in the Northern Territory labour market Taylor (2003b) identifies that between 1996 and 2001, in terms of mainstream employment, the relative labour force status of Indigenous people worsened. During the same period the numbers employed in CDEP have increased in line with the expansion of this scheme, and the numbers employed in the private sector declined (pp. 7-9).

The mining industry provides significant employment opportunities across the desert region. Indeed most mine sites in the desert are located on or near Aboriginal land and Indigenous communities. Despite proximity and the substantial efforts of various mining companies to develop partnerships and employment pathways for local Indigenous people, employment of people from remote communities remains minimal. As noted by David Ross, Director of the Central Land Council:

Employment of people from the bush is a major difficulty. Many of these people haven't had a primary education. They haven't ever had a job and certainly not any idea at all about what a 12 hour shift on a mine site would entail. The cycle of unemployment in the bush is deeply entrenched and it is getting more and more so. This cycle is getting harder and harder to break as more generations emerge which missed getting an education and have no idea what work is (2003:1).

Mining companies are however scaling up efforts to provide opportunities for people from remote communities. This is also being backed by government via the Indigenous Partnerships Program within the Commonwealth Department of Industry, Tourism and Resources. Some of the initiatives include pre-vocational and work experience programs and workplace language and literacy support programs. It is rare, however, that these tailored and increasingly successful programs are aligned to VET qualifications. Indeed it is becoming apparent that pre-vocational, train ready and work ready programs responsive to the cross cultural and unique realities of remote Indigenous domains are being 'invented' by organisations working at the coalface. This alludes to a suite of programs with educative impacts emerging outside the formal education and training sectors, supported with funding and effort via a plethora of programs both private and government. These include those created by mining companies, through environment and heritage programs, through domestic violence prevention programs and through the efforts of non-government organisations such as World Vision. This raises some critical questions for the formal VET sector.

## Qualifications

Table 16 compares the qualification profile for VET students in the desert region, with Australia. The NCVER desert data shows a notable difference between Indigenous and non-Indigenous students. More than half of Indigenous students are studying at AQF levels I and II. The proportion of non-Indigenous students studying at AQF levels III and above is more than

double that of Indigenous students. The reason for the relatively high proportion of non-award courses for non-Indigenous students is possibly associated with industry specific training, most likely in the mining industry.

**Table 16. Qualification profile, desert VET students compared with national data**

Qualification level	2003 VET desert students, Indigenous	2003 VET desert students, non-Indigenous	2003 VET students, Australia
Diplomas and above	1.2%	4.5%	11.0%
AQF Certificate IV	3.0%	12.7%	11.5%
AQF Certificate III	14.2%	25.6%	23.3%
AQF Certificate II	33.2%	19.9%	15.4%
AQF Certificate I	25.4%	7.3%	5.10%
Senior Secondary	0.0%	0.1%	0.5%
Non award courses	9.7%	19.3%	9.3%
Miscellaneous education	3.6%	8.6%	18.1%
Not known	9.7%	2.0%	5.8%
Total	100.0%	100.0%	100.0%

Source: NCVET 2004, special data request

The concentration of Indigenous peoples at lower level qualifications has been an area of concern for VET policy. The spatial distribution of this concentration within the remote areas of Australia perhaps highlights the mismatch between mainstream definitions of occupation and employment and the realities of what might come to count as work on remote Indigenous communities. As highlighted by Kral and Falk (2004:8)

Emerging models for remote Indigenous communities must integrate training and employment pathways that reflect community realities and tolerate alternative definitions of employment that are characteristic of diverse localities.

The over-representation of desert Indigenous peoples in mixed field, subject only and creative arts fields is arguably indicative of the emphasis on developing the English literacy proficiency of remote Indigenous peoples prior to their engagement in more vocationally specific programs. However it is also likely that the array of mixed field and subject only programs reflect some level of choice, to the extent that specific skills at specific times are requested by CDEP programs (e.g. small engine maintenance, seed propagation) and tailored to fit in with program work schedules. It is also likely that the constraints of delivering on site given distances, limited facilities and equipment and cost factors further impedes sustainable programs leading to qualification outcomes.

It is also possible that there is some selective picking of varying units across qualifications that when packaged together are more consistent with the type work undertaken on remote communities. For example, a community of less than 50 people cannot support the level of specialisation possible in larger centres where a plumber, a builder, an electrician, a mechanic and a spray painter can all find enough work. Instead, community members may need to hone and develop skills across a range of occupation areas so, in the absence of a mechanic, they can keep their cars functioning, or in the absence of plumbers or builders re hang the door, unblock the toilet or re sheet the roof (Centre for Appropriate Technology 2002).

The high levels of engagement in creative arts courses reflects the significant economic and cultural recognition the Aboriginal Arts industry is generating regionally, nationally and internationally, for remote Indigenous people, particularly those from the desert. In an issues paper developed for the Northern Territory Arts Strategy, Altman (2003b:9), identifies that there are up to 3000 full and part time Indigenous artists in the Northern Territory and that the 54 arts and craft centres across the Territory had an estimated \$10 million worth of sales over the

2001/02 year. This represents a substantial industry and income source for Indigenous people and one that sits comfortably within community living and across the cultural interface.

## Apprenticeships and traineeships

Table 18 compares Apprentice and Trainee completions across the desert. The numbers of Indigenous people completing is less than one third that of non-Indigenous people, considerably less than might be expected from the cohort, given that the ratio of Indigenous to non-Indigenous youth (aged 15-24) is close to 1:2. Activity is concentrated in the fields of general construction and non-Training Package areas. Non-Indigenous apprentices and trainees are more evenly distributed across fields representative of core desert economic activity—beef industry, retail and hospitality, metals and engineering and transport and distribution.

**Table 17. Apprentice and Trainee Completions 12 months to December 2003 by Indigenous status by Training Package, desert region based on June 2004 estimates**

	Per cent Indigenous	Per cent Non Indigenous	Per cent unknown status	Total
Non Training Package	17.6%	19.6%	33.3%	22.0%
BSB - Business Services	11.8%	12.5%	5.6%	11.0%
MEM - Metal and Engineering Industry	(a)	8.9%	16.7%	9.9%
WRR - Retail	(a)	7.1%	11.1%	6.6%
RUA - Agriculture	(a)	7.1%	(a)	5.5%
AUR - Automotive Industry	(a)	5.4%	(a)	4.4%
BCG - General Construction	17.6%	(a)	(a)	4.4%
THH - Hospitality	(a)	5.4%	(a)	4.4%
BSA - Administration	(a)	1.8%	5.6%	3.3%
MTM - Australian Meat Industry	(a)	5.4%	0.0%	3.3%
RUH - Horticulture	5.9%	1.8%	0.0%	3.3%
Other	0.0%	0.0%	0.0%	22.0%
Total number of completions	170	560	180	910

Source: NCVET Apprentice and trainee data 2004, special data request

Note: Due to rounding some figures may not sum, due to confidentiality reasons (a) represents figures 1 to 9 inclusive

Table 18 shows that approximately 500 Indigenous apprenticeships and trainees are currently in training however retention and completion rates remain less than half commencement rates and indeed a complex issue associated as much with the quality of training as the business fortunes of industries (Harris *et al* 2001).

**Table 18. Apprentice and Trainee In training as at 31 December 2003 by Indigenous status by Training Package, desert region based on June 2004 estimates**

	Per cent Indigenous	Per cent Non Indigenous	Per cent unknown status	Total
MEM - Metal and Engineering Industry	8.0%	16.3%	44.4%	19.5%
Non Training Package	16.0%	7.6%	20.0%	11.2%
BSB - Business Services	14.0%	9.9%	4.4%	9.7%
AUR - Automotive industry	6.0%	8.7%	11.1%	8.6%
THH - Hospitality	4.0%	7.6%	4.4%	6.4%
WRR - Retail	4.0%	7.6%	(a)	5.6%
TDT - Transport and Distribution	4.0%	6.4%	4.4%	5.6%
UTE - Electrotechnology Industry	2.0%	4.7%	(a)	3.7%
RUA - Agriculture	6.0%	4.1%	(a)	3.7%
BCG - General Construction	10.0%	2.9%	(a)	3.7%
Other training packages	26.0%	24.4%	0.0%	22.1%
Total	500	1720	450	2670

Source: NCVET Apprentice and trainee data 2004, special data request

Note: Due to rounding some figures may not sum, due to confidentiality reasons (a) represents figures 1 to 9 inclusive

Table 19 shows that commencements in VET in Schools are higher for Indigenous than non-Indigenous people. Given the youth profile of Indigenous desert Australia these figures remain extremely low. The table also highlights that commencements are certainly not translating into completions.

**Table 19. VET in School students and % of subjects successfully completed in the desert region by Indigenous status and age group for Australia 2003**

Age group	VET in School students				Per cent of subjects successfully completed			
	Indigenous	Non-Indigenous	Unknown	Total	Indigenous	Non-Indigenous	Unknown	Total
Age 14 or under	51	14	8	73	63.0	92.9	40.0	67.7
Age 15-24	151	585	80	816	41.3	52.6	61.5	51.3
Age 25 or over	0	5	0	5	0.0	100.0	100.0	100.0
Age unknown	(a)	(a)	7	10	50.0	100.0	0.0	20.0

Source: NCVET 2004 VET in Schools data, special data request

Note: For confidentiality reasons figures less than 5 have been replaced with (a)

..It is likely that the spatial distribution of Indigenous peoples across the desert affects participation given that the work based components of apprenticeships and traineeships may not be able to be accommodated within small communities. There are some indications of emerging innovations in creating jobs on remote communities utilising the apprenticeship system. The Indigenous Housing Association of the Northern Territory (IHANT) is currently supporting 20 apprentices via the Builder Trainer Program in the central remote region of the Northern Territory. This program, heavily supported by the Northern Territory government is investing in developing a new employment opportunity on communities by redirecting funds usually awarded by tender to contractors, towards creating a regionally based Indigenous Building team. Whilst conceived around a traditional industry, the initiative is hinged on innovating new work and employment models for undertaking essential building, maintenance and repairs work on community infrastructure (DCDSCA 2004).

# ACE across desert Australia

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Part of the mapping of educational activities and pathways for Indigenous people of the desert in this report was to gauge the extent and usefulness of adult and community education (ACE) activities. ACE is defined by NCVET (2001) as:

- ✧ all educational and training activity (i.e. vocational and non-vocational) which is delivered by community-based or community-managed organisations that provide learning opportunities for adults
- ✧ non-vocational educational and training activity which is delivered by TAFE institutes and other VET providers.

Nationally there is a growing recognition of the role ACE plays in providing transitions to and from other forms of education and employment, in providing opportunities for ‘second chance’ and at ‘risk learners’ (Clemans *et al* 2003) and in providing lifelong learning options for adults (ABS 2004b). However, there is a lack of an agreed and coherent definition of what counts as ACE (Birch *et al* 2003:13) and consequently there is no national standard for sector statistics or obligation for providers to report such data. There are also significant jurisdictional differences in the way ACE is either recognised or funded. The situation that existed in 2000 is summarised by Golding, Davies and Volkoff (2001) below.

## Division between ACE and VET

Australia splits more or less in half on the matter of State and Territory funding specifically for ACE. Four jurisdictions funded ACE in 2000. Two of these (New South Wales and Victoria) funded a widely recognised, state coordinated and supported *sectoral* form of ACE. Two others, South Australia and ACT, provided funding in 2000 for ACE programs in very devolved network of community providers with minimal central coordination. The other four State and Territory jurisdictions only funded non VET programs delivered by TAFE or approved VET programs delivered by registered training organisations (Golding, Davies & Volkoff 2001:39).

In 2003 Clemans, Hartley and McCrae undertook a study of ACE activity included in the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) collection. They estimate that 70 to 80 per cent of reported activity is in New South Wales and Victoria with only very small amounts in Western Australia and the Northern Territory (p. 11). It has also been noted that the perception of ACE as an “educational enclave for educated, middle class city dweller, especially women” (Birch *et al* 2003:11) is upheld by the available statistics, despite the analysis that appears often in the literature, that the community based, learner centred model of ACE lends itself to both community capacity building and second chance learning (MCEETYA 2002).

In 2001 the three main areas of reported ACE activity included personal enrichment courses, many of which were subject only VET enrolments, programs provided through community centres and programs provided outside of community centres but reported to umbrella ACE organisations (Borthwicke *et al* 2001). Only the first of these activities were reported for the Northern Territory, Western Australia, South Australia and Queensland. That is information about ACE participation in these jurisdictions region is limited to non-vocational (but generally accredited) courses undertaken through State recognised training providers where non vocational courses are those that do not lead to a qualification under the AQF and are often multi field education. This definition of ACE thus applies to most of the desert region.

## Indigenous participation in ACE

Across the desert 21.8 per cent of Indigenous participation in VET is in multi field education programs—literacy, numeracy and communication. Under the definition of ACE as it is applied in most desert jurisdictions, a large proportion of Indigenous desert participation in VET could be considered ACE participation, particularly given the absence of any formal ACE sector in the desert jurisdictions of the Northern Territory and Western Australia where most Indigenous people are located. That is, Indigenous desert people are accessing the type of VET courses that are arguably more ACE than VET, have a more personal enrichment focus and are arguably more able to be adapted to cultural and lifestyle contexts than the more mainstream vocational courses. Not only are mainstream vocational opportunities very limited across the desert but the types of social and economic participation being activity chosen by Indigenous desert peoples do not necessarily ‘fit’ with the opportunities available through mainstream VET offerings. Boughton and Durnan (2004:66) have alluded to this mismatch as stemming from equity models that are based on inequalities between the assumedly homogenous Indigenous and non Indigenous populations of Australia rather than a considered understanding of choices actively being made by Indigenous peoples about the type of learning that fits both context and aspirations.

## ACE as a community capacity building tool

A brief scoping of the type of learning activities occurring across the desert and largely outside the VET sector was undertaken by the research team. It is apparent that recent concerns across governments, industry and other agencies about building community capacity has manifested in a complex and diverse array of private organisations and government departments dabbling in the education and training game. For example, the increase of Indigenous Land Use Agreements (ILUAs) across the desert (Holcombe 2004a; O’Faircheallaigh 2004) has led to a number of mining companies and other organisations under the framework of Corporate Social Responsibility supporting a range of education and community development activities, sometimes in association with RTOs or schools and sometimes run independently (Government of Western Australia 2003). Other education and capacity building activities are being sponsored on remote communities by Oxfam, World Vision (e.g. World Vision 2004) and by the Commonwealth Government in the areas of land care, heritage and environment (e.g. EPHC 2003), information and communication technologies, sport and recreation and family and community programs such as the Partnership Outreach Education Model Pilots (DEST 2004b), the Local Solutions Program, Stronger Families, Stronger Communities, Reconnect and Fixing Houses for Better Health (e.g. FACs 2003a, 2003b). Local and State government agencies are also involved in training particularly in the areas of governance (e.g. NTG 2003; ORAC 2003) and again these are a blend of enabling and accredited courses. Land Councils and Indigenous organisations such as Aboriginal Community Controlled Health Clinics are also involved in providing a blend of learning opportunities (e.g. NACCHO 2003).

This plethora of learning activity represents the ‘underbelly’ of education efforts across the desert. Its extent is difficult to ascertain given it goes largely unreported unless evaluated by individual organisations or government departments and the range of offerings are often ad hoc and usually dependent on one off funding. The prominence of learning or training in programs instigated beyond the formal education sectors could be seen as a response to the systemic neglect of education access for Indigenous peoples residing in small communities across the desert and the focus of many of these activities on working with local people around local issues and opportunities. Thus the World Vision Program at Papunya is facilitating education programs about petrol sniffing, contraceptive and sexual health, integrating Indigenous and western health knowledges (World Vision 2004) and the Department of Communication, Information technology and the Arts is facilitating a range of informal mobile training programs to remote

communities about utilising Community Access Centres (DCITA 2002). It is possible that these learning programs are fulfilling the enabling and community development role usually ascribed to the ACE sector, although without the legitimacy and financial security this sector experiences in New South Wales and Victoria. Indeed the role such activities are fulfilling, anecdotally at least, would appear to be grounded in harnessing existing and new skills towards community building and embracing cultural contributions – the very type of connection that seems difficult to embrace in vocational programs.

# Preliminary conclusions

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The analysis of data and literature undertaken for Stage one of the Growing the desert project highlights some of the realities impacting on educational pathways for Indigenous peoples across the desert. These can be summarised as follows:

- ✧ The settlement patterns of Indigenous peoples across desert Australia are unique. They have been and are being shaped by policies and practices of successive governments and service delivery regimes as well as ongoing expressions of connections to kin and country. The ongoing viability of these settlements, economically, socially and culturally is still emerging.
- ✧ Of the 33,186 Indigenous people in the desert, more than 4,000 live on communities of less than 50 people. Indigenous desert people are highly mobile across the region – for cultural reasons, for service access reasons. The largest desert communities have populations of no more than 1000.
- ✧ Population growth estimates for Indigenous desert people are positive particularly in the prime working age group of 25 to 64.
- ✧ There are significant pressures on housing and infrastructure in discrete desert communities and overcrowding is endemic.
- ✧ Desert discrete Indigenous communities fare worse than discrete Indigenous communities in other remote and very remote localities in Australia, particularly in terms of education and employment opportunities.
- ✧ A significant proportion of land across desert Australia is held under various types of land tenure, by Indigenous peoples.
- ✧ Access to education services across the desert is relatively poor, especially at secondary and senior secondary levels.
- ✧ Access to payphones, private phones and the internet is significantly constrained across the desert, but especially in Northern Territory desert areas.
- ✧ Facilities that might support on-site education programs are very limited. One in seven communities with more than 50 people have no such on-site facilities.
- ✧ Low critical mass, resulting in low student numbers, affects on site or community identified and driven learning opportunities. This in turn is affected by prevailing funding regimes and expectations of minimum student numbers for program viability.
- ✧ The main employment opportunity for desert Indigenous peoples is the Community Development Employment Program (CDEP). Only one in six working aged desert Indigenous people are in non-CDEP employment.
- ✧ CDEP forms the backbone of essential public and community services on desert communities. In some cases it is an incubator for enterprise activities.
- ✧ Participation rates in VET are high but cluster around Certificate I & II qualifications or in mixed field subject only enrolments. The two main employment areas of desert: mining and retail are noticeably under-represented by Indigenous people.
- ✧ Only four per cent of desert Indigenous peoples hold a Certificate qualification. High participation rates do not equate with Certificate completions.
- ✧ Desert Indigenous people are not participating to any great extent in the fields of education where most jobs in the desert currently exist.



- ✧ Higher education participation is extremely low for desert Indigenous peoples. Indigenous specific Institutions perform better than mainstream universities.
- ✧ While more than half of desert Indigenous people speak an Indigenous language as their first language, they comprise less than one third of the cohort participating in VET.
- ✧ The nature of the engagement of desert Indigenous peoples in VET reflects ACE type courses and learning programs more than vocationally oriented courses.
- ✧ There is a plethora of other educational activity occurring across the desert that are being driven and enacted outside of the formal educational sector. ACE does not exist as a formal sector across most of the desert.

The analysis of data in this report has drawn our attention to the disadvantage experienced by desert Indigenous people in relation to non-Indigenous desert Australia and in relation to Indigenous people living in non-desert remote areas. It is however important to note that the available data neither counts nor reflects many of the activities occurring on the ground as desert Indigenous people innovate their own place based forms of engagement across the customary and modern economies as learners and as workers. These types of ‘work’, that may involve receiving some ‘sit down’ or CDEP monies, some income from the sale of art or craft or the occasional performance, some collection of bush tomatoes for sale and personal use, occasional work as an interpreter, significant voluntary work on committees and land custodianship and management activities are notoriously hard to categorise against standard data collection instruments. As stated by Boughton and Durnan (2004:67), it “is not that they have no work, but they the work they are doing is not recognised, valued or remunerated by the dominant society’s economy”. Furthermore, given both the recent contact history across most of desert Australia and the richness of contemporary expressions of heritage and tradition, it is apparent that negotiating relations and engagement across the cultural interface, including the function and purpose of educational endeavour, remains very much a work in progress.

The statistical picture presented in this report is stark, and perhaps not surprising. It is however an incomplete picture and one that perhaps burdens Indigenous peoples with further renditions of lack and deficit to which the standard policy responses have been to provide greater quantities of the same (Ah Kit 2003a), more accountability on service providers for reaching set equity targets (DEST 2004a) and increased pressure on Indigenous communities to achieve economic independence (Indigenous Communities Coordination Taskforce 2003). Altman (2003a) argues convincingly that economic development in the contexts of remote Indigenous communities needs to be reconceived as a process that might enhance Indigenous participation in local, regional, national and international economies and therefore must embrace the functioning ‘hybrid’ economies of these contexts. The ‘hybrid’ economy being a complex mix of the customary, the market and the State where clearly, Indigenous competitive advantage is embedded in the customary (p. 2).

Altman goes on to suggest that “we need creative and innovative solutions to complex development issues... where local circumstances require local solutions that mesh with Indigenous aspirations” (2003:5). An idea that while stemming from the development issues facing remote Indigenous communities, parallels the argument articulated in ANTA’s recent High Level Review of Training Packages (2003) that identifies the emerging role of new knowledge work in driving innovation, creativity and productivity and the context and site specific nature of such knowledge generation (p. 6). In many ways the types of innovation, types of work and hybrid economic activities extant or emerging at the interface of informal and formal economies and cultural practices is a new form of knowledge work that can leverage the type of economic development sustainable in remote Indigenous. Broader recognition of the range of economic participation by desert people, particularly within the customary economy could harness the role of VET and other educational activities towards tangible local pathways and outcomes.

Much of the economy of desert Australia relies on mining, pastoralism and government services with tourism a recent addition. All of these are susceptible to external forces and hence constitute a vulnerable economic base (Ward & Stafford-Smith 2004:1). However the 2003 State of the Regions report (National Economics 2004) identifies that the main driver of economic growth is the capacity for realised sustained innovation and this capacity for knowledge driven innovation is largely determined at the regional level (p. 9). The report goes on to identify that the potential of regions to harness this capacity is determined by the scale and diversity of social and cultural capital and lifestyle choices within a region (p. 10). Clearly, as indicated in the report, some parts of desert Australia are primed to harness this innovation if policies, practices and investments can be directed to support innovation based on diversity (p. 180). The education sector could have a pivotal role in driving such innovation across the desert and across hybrid and local emerging economies. Indeed there is a critical need to develop new modes of engaging local (Indigenous and non Indigenous) knowledges of land, of living and enterprising within the desert and thus create new approaches to efficient community learning (Lynam & Stafford Smith 2003).

Current educational pathways for Indigenous peoples across the desert can perhaps be described as a continuously revolving door able to be entered and exited many times but rarely leading to anywhere different. Retention or re-enrolment in enabling and pre-vocational courses is not in itself a problem particularly if engagement leads to improved self esteem, confidence and skill levels (Dawe 2004). However, as most Indigenous people are engaging at lower AQF levels and in subject only programs, high participation rates may well be the result of the same learners entering and exiting different programs with different training providers fairly continuously with pathways beyond 'personal development' often unexplored or too difficult in desert community contexts. While there are undoubtedly some exceptions to this picture they are perhaps indeed the exception rather than the rule for Indigenous desert people. However, as noted by Boughton and Durnan (2004:68), this is not to say that there do not exist in some places and some fields strong links between VET and Indigenous communities and indeed Indigenous specific courses and programs designed to assist people to work in the Indigenous sector. Across the desert this link is perhaps most evident in the creative arts areas with developing opportunities in natural resource management.

The extent of Indigenous engagement with other learning activities facilitated by the vast landscape of programs funded under the umbrella of capacity building or community development, while difficult to quantify, alludes to a suite of learning opportunities arguably more situated in and responsive to desert contexts. This suggests, particularly given the absence of a formal ACE sector across the desert, that there is some demand for an array of learning opportunities attuned to local aspirations, and skill sets and perhaps less aligned to mainstream industry or occupations.

It is arguable that the take up of VET courses across desert Australia is limited to those Indigenous peoples prepared to journey to mine sites or major service centres where most employment opportunities exist and who are less likely to speak an Indigenous language, be employed in CDEP or indeed rely on accessing compulsory education on their communities or homelands. A further issue related to the relative isolation and small community size in the desert is that of critical mass. Funding arrangements, which sometimes depend on minimum class sizes, make it difficult to justify delivery in smaller remote communities. In many ways the bulk of VET offerings across the desert sit uneasily within the reality that the training is aligned with jobs and opportunities available elsewhere and not in the places where Indigenous people live and in all likelihood will continue to choose to live.

Stages two and three of this project will explore in greater depth and richness the experience of both learners and practitioners in innovating how VET and other educational offerings are or can harness the extant opportunities of cultural diversity, hybrid economies and geographical specialities to enable effective educational and livelihoods pathways for desert Indigenous peoples.

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# Acronyms

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ABS	Australian Bureau of Statistics
ACA	Australian Communications Authority
ACDE	Australian Council of Deans of Education (Incorporated)
ACE	Adult and Community Education
ACOSS	Australian Council of Social Service
AHW	Aboriginal Health Worker
ANTA	Australian National Training Authority
AQF	Australian Qualification Framework
ARIA	Accessibility/Remoteness Index of Australia
ASGC	Australian Standard Geographic Classification
ATM	Automatic Telling Machine
AVETMISS	Australian Vocational Education and Training Management Information Statistical Standard
BRS	Bureau of Rural Science
CDEP	Community Development and Employment Program
CHINS	Community Housing and Infrastructure Needs Survey
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCITA	(Commonwealth) Department of Communication, Information Technology and the Arts
DEH	Department of Environment and Heritage
DEST	(Commonwealth) Department of Education, Science and Technology
DHAC	Department of Health and Aged Care
EPHC	Environment Protection and Heritage Council
FaCS	(Commonwealth Department of) Family and Community Services
HECS	Higher Education Contribution Scheme
HREOC	Human Rights and Equal Opportunity Commission
IHANT	Indigenous Housing Association of the Northern Territory
ILUAs	Indigenous Land Use Agreements
ISS	Indigenous Social Survey (also known as National Aboriginal and Torres Strait Islander Social Survey)
LL&N	Language, Literacy and Numeracy
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NACCHO	National Aboriginal Community Controlled Health Organisation
NCVER	National Centre for Vocational Education Research
NLC	Northern Land Council
NNTT	National Native Title Tribunal
NSW	New South Wales
NT	Northern Territory
NTCOSS	Northern Territory Council of Social Service
NTG	Northern Territory government
ORAC	Office of the Registrar for Aboriginal Corporations
QLD	Queensland
RTO	Registered Training Organisation
SA	South Australia
SCRGSP	Steering Committee for the Review of Government Service Provision Productivity Commission
SEIFA	Socio-economic index for areas
SLA	Statistical Local Area
TAFE	Technical and Further Education
VET	Vocational Education and Training
WA	Western Australia